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Original Research

Stakeholder analysis for health research: Case studies from low- and middle-income countries

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SUMMARY

Objectives: Future Health Systems: Innovations for Equity (FHS) is working in six partner countries in Asia and Africa, focusing on strengthening the research–policy interface in relation to specific health system research projects. These projects present an opportunity to study the influence of stakeholders on research and policy processes.
Study design: Qualitative stakeholder analysis.
Methods: Stakeholder analysis was conducted in each FHS country using a structured approach. A cross-country evaluation was performed concentrating on six key areas: chosen research topic; type of intervention considered; inclusion/exclusion of stakeholder groups; general stakeholder considerations; power level, power type and agreement level of stakeholders; and classification of and approaches to identified stakeholders.
Results: All six countries identified a range of stakeholders but each country had a different focus. Four of the six countries identified stakeholders in addition to the guidelines, while some of the stakeholder categories were not identified by countries. The mean power level of identified stakeholders was between 3.4 and 4.5 (1 = very low; 5 = very high). The percentage of classified stakeholders that were either drivers or supporters ranged from 60% to 91%.
Conclusion: Three important common areas emerge when examining the execution of the FHS country stakeholder analyses: clarity on the purpose of the analyses; value of internal vs external analysts; and the role of primary vs secondary analyses. This paper adds to the global body of knowledge on the utilization of stakeholder analysis to strengthen the research–policy interface in the developing world.

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Introduction

Health research and the translation of findings to action is critical to improving population health in the developing world.[1,2] Such research translation is essential to meeting the health-related millennium development goals.[3] Positivity towards incorporating new research findings into intervention improvements is recognized as a common ingredient in successful health interventions in various developing world settings.[4] The importance of a systematic approach to priority setting for such research has also been articulated.[5] Research quality and its impact on policy and implementation can be enhanced when multiple stakeholder perspectives, particularly from consumers derived from real-life situations, are taken into consideration.[6]

What do we mean by stakeholders and why is it important to consider them in attempts to improve population health in the developing world? Stakeholders can be defined as 'organizations and individuals that are involved in a specific activity because they participate in producing, consuming, managing, regulating, or evaluating the activity'.[7] Taking into account stakeholder perspectives, varying from an individual residing within a community to national governments to global organizations, allows health interventions to be seen from multiple angles. This has several advantages. First, understanding the perspective of key decision makers provides information on the likelihood of policy changes required for intervention implementation. Second, consumer ideas, concerns and expectations related to the intervention can predict the likelihood of successful intervention implementation. Third, understanding multiple stakeholder perspectives allows intervention refinement incorporating innovative ideas. Fourth, strategies to influence key stakeholders can be formulated. Lastly, sharing perspectives between key stakeholders may enhance solidarity around a particular intervention.

A number of conceptual frameworks linking the research–policy interface have been developed. One such conceptual framework describes key elements as: processes of research generation and decision-making; the stakeholders; the products; the mediators; and the context.[8] Stakeholder engagement throughout research generation and policy-making is emphasized as critical to strengthening the research–policy interface. Mediators, individuals or institutions who foster linkages between different stakeholders are described as perhaps the most crucial component of the framework encouraging strong research–policy linkages.[8] Importance of key influential mediators in initiating change is also supported by literature on 'tipping points', emphasizing the centrality of 'connectors' in precipitating change.[9] Another research–action framework focuses on country-level assessment of linkages.[10] The framework has four elements: general climate; research production; a mix of push and pull factors; and evaluation approaches. The critical role of a wide range of stakeholders in linking research to action is acknowledged. The Future Health Systems framework explores health systems research and its influence on policy processes in low-income countries, and articulates four 'streams of influence' on the research–policy interface: contexts; stakeholders; accountabilities; and processes.[1] Importance of interests, values and power of stakeholders at the research–policy interface is emphasized.

The utility of active participation of stakeholders in ensuring health research translation into sound public health policy is recognized in theory.[11,12] There is a gradually emerging pool of global experiences (Africa, Asia and South America) reported in the literature. The utility of stakeholder-focused approaches to analytical techniques in healthcare decision-making, such as cost-effectiveness analysis[13] and health technology assessments,[14] have been articulated. Practical studies from Brazil, Burkina Faso, Indonesia, Lithuania, South Africa, Uruguay and Pakistan demonstrate the importance of stakeholder engagement for strengthening linkages between research and policy with respect to varied research agendas.[8] An analysis of health policy and systems research agendas in developing countries found varying stakeholder agendas, with decision-making power residing with donors.[15] An ex-ante assessment of transfer of global scientific knowledge on respiratory health to rural Nepal recognized the importance of social system stakeholders in transfering knowledge to practice.[16] An exploration of use of evidence in decision-making for mother to child transmission of human immunodeficiency virus in Uganda demonstrated openness of stakeholders towards incorporating evidence into decision-making.[17] An innovative assessment of the policy environment for evidence-based primary healthcare changes in Chile articulated key stakeholder thoughts and perceptions.[18] A stakeholder analysis on a proposed USAID maternal and child health project in India demonstrated the ability to forecast project success.[19] An assessment of the policy environment surrounding the Framework Convention on Tobacco Control in Thailand and Zimbabwe provided insights into the role of global stakeholders in setting contexts for national activities on this key public health issue.[20]

Building on this existing knowledge, the overarching goal of this paper is to add to the global body of knowledge on utilization of stakeholder analysis to strengthen the research–policy interface in the developing world. Four key objectives are: to review methodological issues in conducting stakeholder analyses in low- and middle-income countries; to present preliminary findings from six baseline country stakeholder analyses in Asia and Africa on specific research areas; to report on an evaluation template for cross-country comparison of stakeholder analyses; and to explore utility of the approach used for future use in low-income countries.

This paper is based on the work of Future Health Systems: Innovations for Equity (FHS), which aims to generate knowledge that shapes health systems to benefit the world's poor.[21] FHS brings policy makers from six countries together with leading public health and development research institutions to test strategies in three areas: financing of health care to reduce people's risk of poverty; improving access to health services; and strengthening the health systems research–policy interface to promote the interests of the poor. Consortium partners are based in Afghanistan, Bangladesh, China, India, Nigeria and Uganda, and the lead agencies are Johns Hopkins University Bloomberg School of Public Health, USA and the Institute of Development Studies, UK. While each country has separate studies which are specific to local context and need, most studies do involve influencing policy

at various levels, either as a direct or indirect outcome of the proposed work. Details of each study can be found on the consortium website.[21]

Evolution in the use of stakeholder analyses in health and development has been reviewed elsewhere.[22] Multiple methods are utilized and can be adapted to conduct stakeholder analyses[23]; this is in keeping with an emphasis on 'methodological pluralism' for public health interventions, particularly engagement with stakeholders.[24] The stakeholder analyses process can be divided into three phases (planning, conducting and analysing) and key considerations in each of these phases are articulated by Varvasovszky and Brugha.[25] Reflection on all three phases is important early in the stakeholder analyses process, and multiple amendments are required due to the iterative nature of analyses. As a starting point, clarity on purpose of analysis is essential.[25,26] This purpose may be different early in the planning phase (rapid situational analysis) than later on in project/intervention implementation. If the purpose of the stakeholder analysis is to provide a comprehensive analysis in order to provide new information on policy-making processes, a retrospective study may be beneficial.

The time dimension of analyses has implications on the methodology employed. Approaches and methods are different depending on whether the focus is on understanding current policy formation on a particular issue, as opposed to likelihood of a particular policy or project being successful in the future. Future-oriented stakeholder analyses require application of prospective methods, often broad in scope.[19,25] Further, time commitment needs to be ongoing throughout the project and must be aligned with availability of resources.

Stakeholder analysis setting, in terms of context as well as the level of analysis, is a key consideration.[25] The sociocultural context of where the analyses take place requires special attention for effective planning and implementation. In particular, communication channels among different stakeholders, as well as between stakeholders and those carrying out analyses, will be unique to individual sociocultural environments. Adapting approaches based on understanding this environment will enhance the validity of findings. The level of analysis also needs clear articulation, and analyses have successfully been carried out focusing on various levels: local[27]; district[16]; national[28]; and international.[20]

Analyses can be carried out by individuals or teams, either from within or external to the project or issue on which stakeholder analyses are focusing.[25] Advantages to an internal analysis are familiarity with importance of key stakeholders and cognizance of knowledge flow pathways in local contexts; however, a disadvantage is that internal analysts may have preformed opinions and relationships with key stakeholders, which may bias findings. Objectivity of external analysis may lead to more robust findings.[23]

Available data sources for analyses can be categorized into primary and secondary.[25] Primary sources are stakeholders themselves; secondary sources include documents, reports, statements and opinions of others regarding stakeholder viewpoints. In early stages of analyses, secondary sources may provide a rapid means of gaining knowledge on stakeholder viewpoints. Numerous methods can be utilized to gather primary data on stakeholders (semi-structured interviews of key informants, telephone interviews, focus group discussions, consensus methods and nominal group processes).[29] Information collection, whether from primary or secondary sources, should be iterative, allowing continuous development of the knowledge base of stakeholders.

Stakeholder identification warrants careful judgement, needing to be neither under-inclusive (limiting breadth of perspectives) nor over-inclusive (attenuating necessary focus).[26] Three key criteria have been articulated for inclusion of key stakeholders: the potential to weaken, strengthen or influence support for the intervention or policy.[23] An initial list can be constructed by brainstorming relevant issues; further additions to the list can utilize a snowball technique where stakeholders identify further stakeholders.[18,28] An external analyst may also suggest stakeholders not initially identified by internal analysts. Factors increasing the likelihood of gaining access to key stakeholders, such as recommendations or introductions, may also alter stakeholder viewpoints.[25] Access to community stakeholders may be particularly difficult, warranting a focus on continuous community engagement and long-term partnerships.[27,30] Communication between stakeholders is a dynamic process that can shape future stakeholder positions[26]; this is often ignored in stakeholder analyses. Mapping information flow and influences between stakeholders can provide valuable direction to strategic approaches to key stakeholders.[25] Accountabilities governing relationships between different stakeholders with disparate interests, values and power warrant careful examination.[1] Further, coalitions between key stakeholders, particularly in the community, may be facilitated by understanding these inter-relationships.[31]

Systematic organization and presentation of findings from stakeholder analyses is essential. Matrix tables can be constructed to summarize stakeholder perspectives using key headings important to the particular context.[26] Possible headings include: involvement in the issue; interest in the issue; level of influence; position adopted; and impact of issue on actor.[28] Matrix cells under each column may utilize free-text descriptions, ordinal scales or categorical variables. Forcefield matrices displaying two dimensions of stakeholder perspectives (e.g. level of influence and level of agreement) can be very useful in categorizing stakeholders into types. Other methods to present findings include maps illustrating networks and positions.[25] Findings can be used to strategize management of stakeholders,[23] matching stakeholder types with strategic approaches.[25] The approach to stakeholders that are supportive, mixed, non-supportive and marginal is to involve, collaborate, defend and monitor, respectively.[25] Suboptimal and inappropriate approaches may lead to: unnecessary attention to some stakeholders, leading to wasted resources; missed opportunities for gaining support; and placing the proposed intervention or policy at risk.[25]

Many limitations exist in the use of stakeholder analyses. First, analyses can be over-utilized, making it essential to remain cognizant that such analysis is not an end in itself, and is a representation of reality (not reality itself).[23] Second, due to its cross-sectional nature, analyses are time dependent: in rapidly changing contexts, this can be a significant drawback, particularly if strategic approaches to stakeholders are shaped from outdated findings.[25] Third, analyst-focused limitations include: ascertainment bias representing a systemic failure to represent equally all the stakeholders that warrant representation; biases

in interpretation of analysis findings; and the Hawthorn effect (i.e. changed stakeholder responses as a consequence of analyst activities).[32] Fourth, stakeholder-focused limitations include: response bias, where some stakeholder types are more likely to participate; conflict between individual stakeholder views and those of the organization they represent; levels of true disclosure; and unknown inter-stakeholder influences in shifting positions.[25] Finally, analysts themselves, particularly internal analysts, can be stakeholders in the process; this can often be overlooked.

Methods

Given the above methodological considerations, a multi-step guideline for stakeholder analysis by FHS country teams was constructed. The purpose of such analyses was to generate findings from baseline stakeholder analyses to inform initial strategies. This involved both primary and secondary sources. The guidelines can be summarized into 12 points (Table 1).

Table 1 – Twelve-step guidelines for stakeholder analyses in Future Health Systems: Innovations for Equity countries.

Number	Step
1.	Articulate a clear problem statement
2.	Clearly define the new health policy or strategy to be considered
3.	Identify the key stakeholders of the proposal and systematically consider 11 categories of stakeholders (beneficiaries, with a focus on neglected groups; central government agencies, e.g. ministries of finance, planning, civil service; ministry of health and key parts of the ministry; local governments; financiers; civil society organizations; health governing boards; provider organizations; professional organizations and health workers; unions; and suppliers)
4.	Attempt to identify different groups within an organization that may have different perspectives or levels of power
5.	Articulate the current level of power/influence for each stakeholder on a five-point scale (five-point scale: 1 = very low; 2 = low; 3 = moderate; 4 = high; 5 = very high)
6.	Articulate the type of power/influence for each stakeholder (use terms such as: opinion leader; advisor to policy maker; decision maker)
7.	Articulate the current level of agreement with the proposal for each stakeholder using a five-point scale (five-point scale: 1 = strongly disapprove; 2 = disapprove; 3 = neutral/no opinion; 4 = approve; 5 = strongly approve)
8.	Identify the main concerns of each stakeholder about the proposal
9.	Classify the stakeholders into one of the five categories (drivers, blockers, supporters, bystanders or abstainers)
10.	Articulate the main approaches/strategies to deal with the stakeholders
11.	Describe a plan to deal with the stakeholder, bearing in mind its type of power and main concerns
12.	Describe plans to periodically repeat the stakeholder analysis

Three steps require further explanation. Step 3, identification of stakeholders, requires systematic consideration of 11 categories of stakeholders. Step 9, classification of stakeholders into five categories, is achieved by considering levels of agreement and levels of power/influence. This two-dimensional consideration allows grid construction that defines five stakeholder categories: drivers have high levels of agreement and power; blockers have low levels of agreement and high levels of power; supporters have high levels of agreement but low levels of power; bystanders have low levels of agreement and power; and abstainers have intermediate levels of agreement and power. Step 10, articulation of main approaches/strategies to deal with stakeholders, is based on stakeholder categorization: drivers should be empowered with provision of resources and opportunities for influence; blockers should be moved to become supporters/abstainers or defended against; supporters should be involved in discussion and technical steps; and both bystanders and abstainers should be monitored for opportunities to move them into different positions.

Once baseline stakeholder analyses had been conducted by FHS country teams, an evaluation framework was applied to each country. This involved a five-step process: first, a stakeholder analysis checklist was constructed based on the guidelines; second, a stakeholder analyses evaluation template was created; third, the evaluation template was applied to FHS country stakeholder analyses; fourth, findings for each country were collated; and lastly, cross-country comparisons were made attempting to tease out key similarities and differences. The purpose of this process was to assess early-phase stakeholder analyses across partner countries that could inform FHS projects as well as the global knowledge pool.

The cross-country evaluation was performed concentrating on six key areas: first, chosen research topic; second, type of intervention considered; third, inclusion/exclusion of stakeholder groups; fourth, general stakeholder considerations; fifth, power level, power type and agreement level of stakeholders; and lastly, classification of and approaches to identified stakeholders. Key components of each of these six areas were examined. These components of comparison are presented in Table 2.

Results

A brief description of the highlights of each country-level stakeholder analysis is presented here. It is anticipated that these findings will be reported in detail in due course.

The FHS Bangladesh team conducted a stakeholder analysis on rural informal healthcare providers with a focus on designing skill enhancement interventions and establishment of links between formal and informal healthcare providers. A wide array of stakeholder groups were considered with a particular focus on beneficiaries and community-based stakeholders. The level of agreement for stakeholders considered was high; no stakeholders were thought to disapprove. While public provider organizations agreed in principle with the proposal to improve the existing health systems, they were concerned that demand would exceed supply and result in a burden on existing healthcare programmes. Most

Table 2 – Cross-country stakeholder analyses evaluation: comparison factors.

Area	Component
1. Research topic focus	Infectious disease
	Non-communicable disease
	Injuries
	Maternal health
2. Type of interventions considered	Product-intensive
	Service-intensive
	Behavioural change
	Environmental control
	Combination
3. Stakeholder categories identified	Beneficiaries
	Central government agencies
	Ministry of health
	Local governments
	Financiers
	Civil society organizations
	Health governing boards
	Provider organizations
	Professional organizations and health workers
	Unions
	Suppliers
	Others (new to guidelines)
4. General considerations	Number of stakeholders identified
	% of stakeholders – outside guideline structure
	Different groups within organizations identified?
	Plans to periodically repeat the analysis articulated?
	% of stakeholders for whom main concerns articulated
5. Power level, power type and agreement level	% of stakeholders – power level identified
	Mean power level (1 = very low; 5 = very high)
	% of stakeholders – power type identified
	% of stakeholders – power type by standard terminology
	% of stakeholders – agreement level considered
	% of stakeholders – agreement level identified
	Mean agreement level (1 = strong disapprove; 5 = strong approve)
6. Classification and strategic approach	% of stakeholders – classified into category
	% of classified stakeholders either drivers or supporters
	% of stakeholders – strategic approaches articulated
	% of stakeholders – plans for stakeholder articulated

stakeholders were classified as supporters; however, drivers, blockers, bystanders and abstainers were also identified. Bystanders and blockers emerged predominantly from both private and public healthcare providers who felt that, while they agreed with the overall proposal, it would lead to extra workload (public) or a loss of clients (private), with no adequate reimbursement scheme in place. Strategies were therefore proposed to shift groups as necessary to supporters and drivers through workshops, training programmes and promoting greater involvement in the process.

The research concept in FHS Uganda examined the cost, volume, quality and access of services offered by private and public health facilities. Stakeholders identified by the Uganda team focused on government and provider organizations, although others included bilateral donors, international health agencies, academia and the media. While many groups interviewed felt that such a study would help to re-evaluate current priorities and identify health sector initiatives that would work, certain groups who least approved with the research concept felt that the reasons for poor health status in war-torn areas were already apparent and resources should be allocated towards other pressing health issues needing greater attention. While the concerns of each stakeholder were identified, no strategic approaches to any stakeholders were articulated.

The FHS India team conducted a stakeholder analysis on a project to make the District Health and Family Welfare Program in West Bengal work for the poor and vulnerable groups. Stakeholders from four of the 11 suggested categories, focusing on government and private providers, were identified, as well as donors. The level of power for each stakeholder was articulated and the agreement level was high for most stakeholders considered. In general, the proposal was verbally well accepted by all stakeholders. However, bystanders emerged from private providers and donors, and strategies such as engaging them further in discussions and ensuring regular dissemination of plans were suggested to help shift these groups to a supporting position.

The FHS China team conducted a stakeholder analysis on expansion and refinement of the New Cooperative Medical Scheme in rural areas, with the county as the basic intervention unit. Stakeholders from five of the 11 suggested categories were considered; both central government agencies and local government were considered, but provincial government was not. Importantly, beneficiaries, both poor and non-poor, were considered. Level of power for each stakeholder was articulated and ranged from low to high. Agreement level was predominantly high for most stakeholders considered, apart from the Ministry of Finance. Strategic approaches to different types of stakeholders were articulated, using modifications of the terms for strategies suggested in the guidance.

The chosen research subject in FHS Afghanistan was generation of greater demand for maternal health services given the poor health and development context. International health agencies, which have a substantial amount of influence in this post-conflict developmental context, constituted eight of the 29 stakeholders examined and were identified as being critical in influencing other stakeholders to shift from blockers to supporters of the proposal. Enhanced dissemination of information and greater involvement of international health agencies in an advisory capacity were identified as potential strategies for implementing the proposal. Stakeholders from a wide range of power levels were considered, with a predominance of high powered stakeholders. Cultural barriers, such as women being forced to travel or go to healthcare facilities, and opportunity costs of attending maternal health services were identified by district and local health agencies.

The FHS Nigeria team conducted a stakeholder analysis on a study aiming to generate knowledge necessary to design innovative interventions for effective malaria treatment, focused on the poor. A large number of diverse stakeholders were identified, and the level of power for each stakeholder, excluding the beneficiaries themselves, was generally high. Concerns over the ill-defined role of the community in anti-malarial drug surveillance and detection of drug reaction were identified by many of the stakeholders; however, all stakeholders were judged to agree with the research proposal. Drivers, supporters and bystanders were identified, with no abstainers or blockers considered.

Cross-country evaluation revealed some interesting findings. The research topic in four of the six countries was not focused on a specific area but was relevant to a wide spectrum of disease burden and general health systems issues. The Afghanistan and Nigeria proposals focused solely on maternal health and infectious disease, respectively. Service intensive interventions were included in the research proposals of all countries. The Afghanistan research proposal also tackled behaviour change interventions and had a combined intervention approach. Nigeria included a product intensive intervention in its research proposal and also had a combined intervention approach.

All six FHS countries identified a range of stakeholders but each country had a different focus. Four of the six FHS countries identified stakeholders in addition to the guidelines, while some of the stakeholder categories were not identified by countries. For example, central government agencies were not identified by Bangladesh and India; financiers were not identified by Uganda, India, China or Afghanistan; civil society organizations were not identified by India and China; health governing boards were not identified by Bangladesh, Uganda or China; provider organizations were not identified by India; and professional organizations and health workers were not identified by Uganda or China. Some overlap existed between categories, and cognizance of such overlap is useful in extracting useful information from the analyses.

The number of stakeholders identified ranged from 10 to 29. Four of the six FHS countries identified stakeholders from categories outside those mentioned in the FHS guidelines. For example, 36% of identified stakeholders in Uganda and 35% of identified stakeholders in Afghanistan were new to the guidelines. The concerns of identified stakeholders were reported for virtually all stakeholders in all countries. The mean power level of identified stakeholders was between 3.4 and 4.5 (1 = very low; 5 = very high). The power type was identified by most countries and the mean agreement level was between 3.6 and 4.5 (1 = strong disapproval; 5 = strong approval). The percentage of classified stakeholders that were either drivers or supporters ranged from 60% to 67% in three countries, but was significantly higher for Bangladesh (91%) and Nigeria (90%). Countries articulated strategic approaches and plans for engaging most of the stakeholders.

Discussion

Three important common areas emerge when examining the execution of the FHS country stakeholder analyses: clarity on the purpose of the analyses; value of internal vs external analysts; and the role of primary vs secondary analyses. The general purpose of stakeholder analyses in each FHS partner country was to assist with adoption or implementation of proposed research on future health systems. The specific purpose of the baseline stakeholder analyses was to identify groups that can affect adoption or implementation of a new health policy or strategy, understand their level of power and influence, and develop approaches to deal with them. Thus, there appeared to be clarity on the purpose of the analyses throughout the consortium. Since researchers themselves conducted stakeholder analyses, they can be considered internal analysts. The country teams were well placed to incorporate knowledge of the sociocultural environment of their respective countries in planning and implementing their stakeholder analyses. The facilitative role of FHS consortium members and national advisory groups in each country may have allowed access to external analysts who might have suggested stakeholders not initially identified by FHS country teams. The early stage of FHS country activities also warranted analyses using more secondary sources; this provided a useful and rapid means of gaining knowledge regarding stakeholder viewpoints. However, these initial findings require refinement by utilizing primary analysis methods in multiple iterative steps. An iterative approach is particularly important in light of rapidly shifting political and social landscapes in FHS countries.

Extreme challenges are faced by each FHS country team in expanding access to effective health interventions in their chosen area of research. This necessitates effective strategizing towards multiple stakeholders to strengthen the evidence–policy interface. The country-level analysis facilitates the approach to specific stakeholders. Further iterations of the analyses, which need to be more detailed with respect to proposed interventions, may be informed by such findings. For example, it is clear that many stakeholder categories were not considered by some countries, and most analyses focused on relatively powerful stakeholders and those in agreement with the proposed research. Focusing on weaker stakeholders and those who disapprove of the proposal may enrich the country-level findings from the analyses, thus allowing more effective strategizing at the country level.

Cross-country comparisons also allow partner countries to learn from the experience of the consortium as a whole. For example, four countries gave consideration to stakeholders new to the suggested categories; these categories may provide interesting entry points for other countries that did not consider such stakeholders. Second, articulated plans for engaging with each type of stakeholder may be compared across countries, and lessons learned and translated into action in partner countries. Third, the importance of uniformity in terminology (e.g. in power types) becomes apparent when attempting to execute cross-country comparisons; further attention can be given to understanding country terminologies based on local power mechanisms.

As stated in the objectives of this paper, the intent of this paper was to demonstrate the development and application of rigorous guidelines for implementing stakeholder analyses and analysing at a cross-country level. This paper does not present results from in-depth qualitative analysis country by country, which is being done by individual country teams and

will be produced as country papers in the future. This results in the loss of some narrative information but adds to the main objective of this study which was to standardize methodologies across the consortium.

The stakeholder analyses process utilized by FHS attempts to introduce a cycle of learning both within and across the partner countries. Thus, guidelines were developed, refined, utilized and results analyzed by the country teams, followed by evaluation by external (to each country) analysts. Such a process allows refinement of analyses, making findings more robust. As part of this iterative process, analyses are expected to shift from a focus on secondary to primary analyses, taking the initial theoretical findings and transforming them into operational findings. Further, the original guidelines can be improved by utilizing the findings of the process.

Examining the development of stakeholder analyses in each country and across countries also adds to the global knowledge pool on this subject. Documenting the application and results of stakeholder analyses allows an example for other developing countries. In the future, prospective analysis of the effects of engagement with multiple categories of stakeholder in influencing decision-making in relation to research may prove particularly useful. The 12-step guideline and evaluation template used by FHS may prove useful for use in a wide range of developing world settings for initiating and refining stakeholder analyses in relation to research proposals. The enhancement of researcher capacity to appreciate and utilize such stakeholder-focused approaches to strengthening the research–policy interface is going to be a crucial outcome of FHS endeavours.

Ethical approval

Ethical approval in each country was sought and granted. FHS team members in each country carried out their own data collection.

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Competing interests

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