



Establishing health systems financing research priorities in developing countries using a participatory methodology[☆]

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ABSTRACT

Donor funding for health systems financing (HSF) research is inadequate and often poorly aligned with national priorities. This study aimed to generate consensus about a core set of research issues that urgently require attention in order to facilitate policy development. There were three key inputs into the priority setting process: key-informant interviews with health policy makers, researchers, community and civil society representatives across twenty-four low- and middle-income countries in four regions; an overview of relevant reviews to identify research completed to date; and inputs from 12 key informants (largely researchers) at a consultative workshop.

Nineteen priority research questions emerged from key-informant interviews. The overview of reviews was instructive in showing which health financing topics have had comparatively little written about them, despite being identified as important by key informants. The questions ranked as most important at the consultative workshop were:

1. How do we develop and implement universal financial protection?
2. What are the pros and cons of the different ways of identifying the poor?
3. To what extent do health benefits reach the poor?
4. What are the pros and cons of implementing demand-side subsidies?
5. What is the cost-effectiveness of service delivery models and health systems strategies?

It is hoped that this work on HSF research priorities will complement calls for increased health systems research and evaluation by providing specific suggestions as to where new and existing research resources can best be invested. The list of high priority HSF research questions is being communicated to research funders and researchers in order to seek to influence global patterns of HSF research funding and activity. A “bottom up” approach to setting global research priorities such as that employed here should ensure that priorities are more sensitive to user needs.

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Introduction

While it is clear that there is an urgent need for a more focused research agenda to address the specific questions facing policy makers in developing countries, donor funding for health systems financing (HSF) research has been often poorly aligned with national priorities. Some previous global priority setting exercises have identified health-financing issues. For example, The Ad Hoc Committee on Health Research Relating to Future Intervention Options included among its list of priorities for research on health policies and health systems “setting priorities for the allocation of health resources” and “the mix of public and private health service provision and financing” (Ad Hoc Committee on Health Research Relating to Future Intervention Options, 1996, p. 88). One of the

twelve research priorities identified by the Task Force on Health Systems Research as important for achieving the Millennium Development Goals was “community-based financing and national health insurance” (Task Force on Health Systems Research, 2004, p. 998). However, these exercises have generally been “top-down”, involving a limited number of technical experts, and have failed to consider the full range of HSF issues.

To advance this area of health policy and systems research related to HSF issues, the Alliance for Health Policy and Systems Research and its partners developed a work program to generate consensus about a core set of research issues that urgently require attention in order to facilitate policy development. Our intention was to develop a set of global research priorities that might yield generalizable findings, but were rooted in country priorities and perspectives. The paper has the following three specific objectives:

1. To identify the HSF policy concerns and research priorities of key stakeholders in low- and middle-income countries;
2. To assess the extent to which existing HSF research addresses these policy concerns and research priorities;
3. To develop a preliminary list of core research priorities that require urgent attention to facilitate policy development.

Methodology

There were three key steps in this priority setting process, corresponding to the three objectives (Fig. 1). Step 1 was key-informant interviews with health policy makers, researchers, community and civil society representatives across twenty-four low- and middle-income countries in four regions (Latin America, East Africa, Southeast Asia and Middle East/North Africa) leading to a series of regional reports. Step 2 was an overview of relevant systematic reviews to identify research completed to date. Results from steps 1 and 2 were then discussed at (step 3) a consultative workshop of experts in the field of HSF research for ranking of the research issues, and discussion of possible methodologies to examine the top-ranked issues.

Regional reports

The Alliance competitively awarded grants to four organizations in different regions. Investigators in all four regions (representing 24 countries) conducted key-informant interviews with policy makers and other stakeholders such as researchers, community and civil society representatives. The precise methodologies varied between the four regions and are summarized in Table 1. Respondents were asked for their thoughts on policy concerns and research priorities in three thematic areas: health financing, the non-state health sector and human resources for health. (Findings regarding the other two thematic areas – the non-state sector and human resources for health – are presented elsewhere.) Regional institutions were left to seek ethical approval for the qualitative work in their own regions. Key-informant interviews were conducted between May 2007 and March 2008.

The data were analysed by the lead author (MKR) in several phases. First, regional reports were read, and health financing policy concerns and research priorities were extracted, and categorized using a conceptual framework modified from that of Kutzin (2001). Second, cross-cutting policy concerns and research priorities common to at least three of the regional reports were identified. Third, specific policy concerns and research priorities, as expressed by interview respondents, were extracted from country-level reports (available only for Middle East and North Africa, and East Africa). This last step was intended to gain some sense of the consistency or breadth of topics included under any one of the cross-cutting policy concerns or research priorities.

Systematic review and mapping of literature reviews

Search strategy

The literature review was conducted in order to map out the current supply of HSF research, and to assess the extent to which existing research addresses the priorities expressed in key-informant interviews. Our literature review was limited to existing systematic reviews. We defined systematic reviews as syntheses

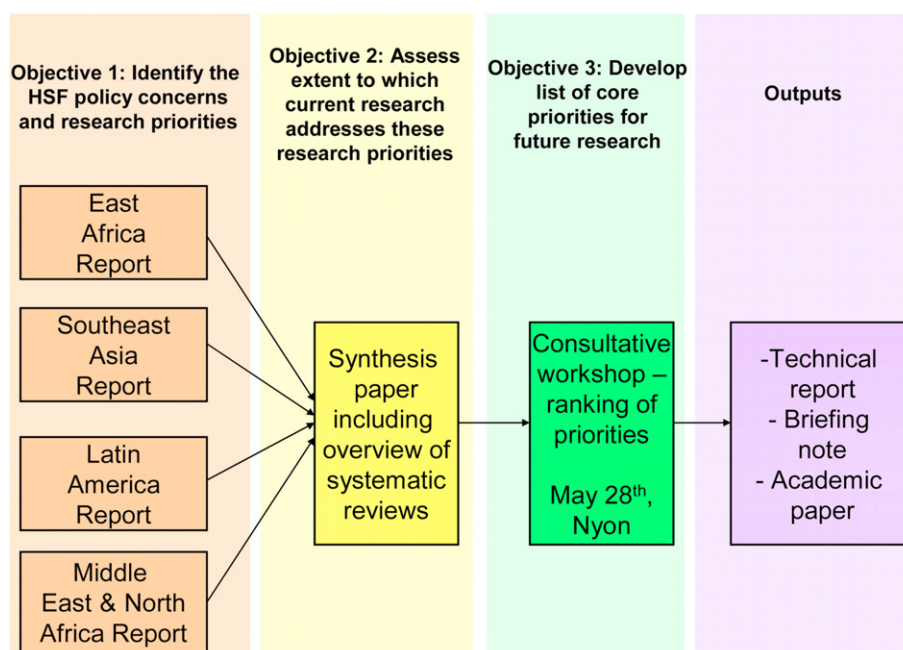


Fig. 1. Priority setting process.

Table 1
Methodologies used in four regional case studies.

Region	East Africa	Southeast Asia	Latin America and the Caribbean	Middle east and north Africa
Regional hub	Makarere Institute of Social Research, Makarere University, Uganda Tanzania, Uganda	National Institute of Health Research and Development, Jakarta, Indonesia Indonesia, Thailand, Malaysia	Bitrán & Associates, Chile	American University of Beirut, Lebanon
Countries included			Chile, Peru, Panama, Suriname, El Salvador, Bolivia, Argentina, Dominican Republic, Costa Rica, Nicaragua	Algeria, Egypt, Jordan, Lebanon, Morocco, Syria, Tunisia, Palestine, Yemen
Key-informant interviews	Elite interviews - MoH officials - heads of departments and programs In-depth interviews - heads of special programs/ desk officers - heads of sections - heads of private facilities/NGOs - heads of research institutes No	"Officials from identified national institutions/units/organizations and regional or international organizations"	In each country: - 7 policy makers - 2 researchers	Representatives of: - public sector - health professionals groups - academia - civil society groups, private sector, NGOs, faith-based organizations - Consumers
Were respondents presented with a list of policy/research options?	No	Yes	First asked an open-ended question, but then presented with a list for ranking exercise Respondents asked to rank a pre- defined list of policy/research priorities	Yes – presented with the first four (broad) categories of the conceptual framework As a second stage (results not yet available)
Ranking (versus only identifying) priorities	No	Ranking performed (although only for 2 of 3 countries)		

of almost any kind of research literature – primary, secondary, qualitative, quantitative, descriptive, experimental – but with a description of the database(s) searched and some description of the criteria that were used to include or exclude papers. We searched Medline through the Ovid interface to generate a list of possible systematic reviews on health financing topics. Our search strategy consisted of three parts that were used in combination with each other: 1) search terms designed to generate a list of possible systematic reviews, 2) search terms designed to retrieve articles on health financing topics, and 3) search terms designed to restrict the Medline search to developing countries. We used search terms defined by Lavis et al. to detect systematic reviews that address topics related to health systems governance, financial or delivery arrangements (see [Annex 1: WEB-ACCESSIBLE FILE](#)) and broadened this using a validated search strategy developed by Montori et al. to increase the sensitivity of the search ([Lavis et al., 2007; Montori, Wilczynski, Morgan, & Haynes, 2005](#)). To retrieve articles on health financing topics, we included only the terms relevant to health financing topics, and added several terms to increase sensitivity to some health financing topics that may not be picked up by the original search ([Annex 1: WEB-ACCESSIBLE FILE](#)). To select articles particular to developing countries, we again used terms from the Lavis et al. search strategy that selected for publications based on country development status ([Annex 1: WEB-ACCESSIBLE FILE](#)). The three parts of our strategy were combined together using the 'AND' command to select only articles in all three categories, resulting in 1548 citations. The search included all the articles available in Medline through Ovid on April 30th, 2008.

Gray literature

In addition to our Medline search, we conducted a limited search of the gray literature. We searched five main websites: World Bank, ELDIS, OECD, Equinet, and WHO. Within the WHO website, we paid particular attention to the Commission on Macroeconomics and Health publications, the WHO/EURO Health Evidence Network website, and the Commission on Social Determinants of Health website. We searched these websites using combinations of the terms "health financing", "literature review", "synthesis", "review" or "cost effectiveness". Where publications were sorted by type, we browsed the category "Health Financing". We also hand searched the Disease Control in Developing Countries books ([Jamison et al., 2006; Jamison, Mosley, Measham, & Bobadilla, 1993](#)).

Selection criteria

We scanned the titles, abstracts, or full text of the 1548 Medline citations and citations from the gray literature using three inclusion criteria and one exclusion criterion. To be included, the reviews must: 1) Provide indication that a search of a literature database had been conducted, 2) Include some selection criteria that explain what sorts of articles were accepted, and 3) Include some discussion of a health financing topic, not necessarily as a primary focus. Articles were excluded if they reviewed literature from a single, high-income country; all cross-country reviews were included, as were reviews from single low- or middle-income countries. Articles were excluded if they could not be included based on the abstract alone, and full text was not available through the libraries of McMaster University, the London School of Hygiene and Tropical Medicine, or the World Health Organisation. All Medline citations were screened by two independent reviewers (MKR, TJJ). Disagreements were resolved by consensus and retrieval of full text. Of the 1548 Medline citations, based on initial screening there was consensus that 31 reviews be included, and after discussion about reviews on which the two screeners initially disagreed, there was consensus that 45 reviews be included.

16 reviews were included from the gray literature, resulting in 61 reviews. Additionally, 42 reviews originally identified and coded by Lavis et al. into three categories (financial arrangements, pricing and purchasing, or stewardship of the non-state sector's role in financing health care) were also included. The Lavis et al. search employed a narrower definition of systematic review (focusing on quantitative reviews about comparative effectiveness), did not cover all of the same research topics (cost-effectiveness, for example, was excluded), and it did not have a developing-country focus. A total of 103 systematic reviews on health financing topics were selected for coding (Fig. 2).

Coding

We coded the 103 systematic reviews according to the major and minor health systems financing themes addressed by the review. Also, we extracted from each paper the primary objective, and any suggestions made by the authors as to important topics for future research. Articles were excluded at this stage if: 1) it was a Cochrane review marked as "withdrawn" (4 papers); 2) on closer examination of the paper, it became apparent that it did not meet the inclusion criteria either because of methodological weaknesses

(3 papers) or because the desired health financing topics were not touched upon (4 papers); 3) the focus of the study was a single high-income country (2 papers); or 4) data provided in title/abstract were not sufficient to code the paper and the full text of the paper was not available (1 paper). Annex 2 lists papers excluded at the data extraction stage (WEB-ACCESSIBLE FILE).

Consultative workshop

A group of twelve experts in health economics and financing research were assembled on the 28th of May, 2008, in Nyon, Switzerland. The experts were purposively selected to represent a diverse group of countries/regions and research interests. Six of the twelve respondents are based at institutions in low- or middle-income countries. Four of the participants are based at universities, four at international organizations (the World Bank and WHO) and the remaining four work with government (one) and private or non-profit research institutions (three). In advance of the workshop, participants were provided with a draft paper based on the key-informant interviews and the overview of reviews, and presented with a (unranked) list of emerging priority research

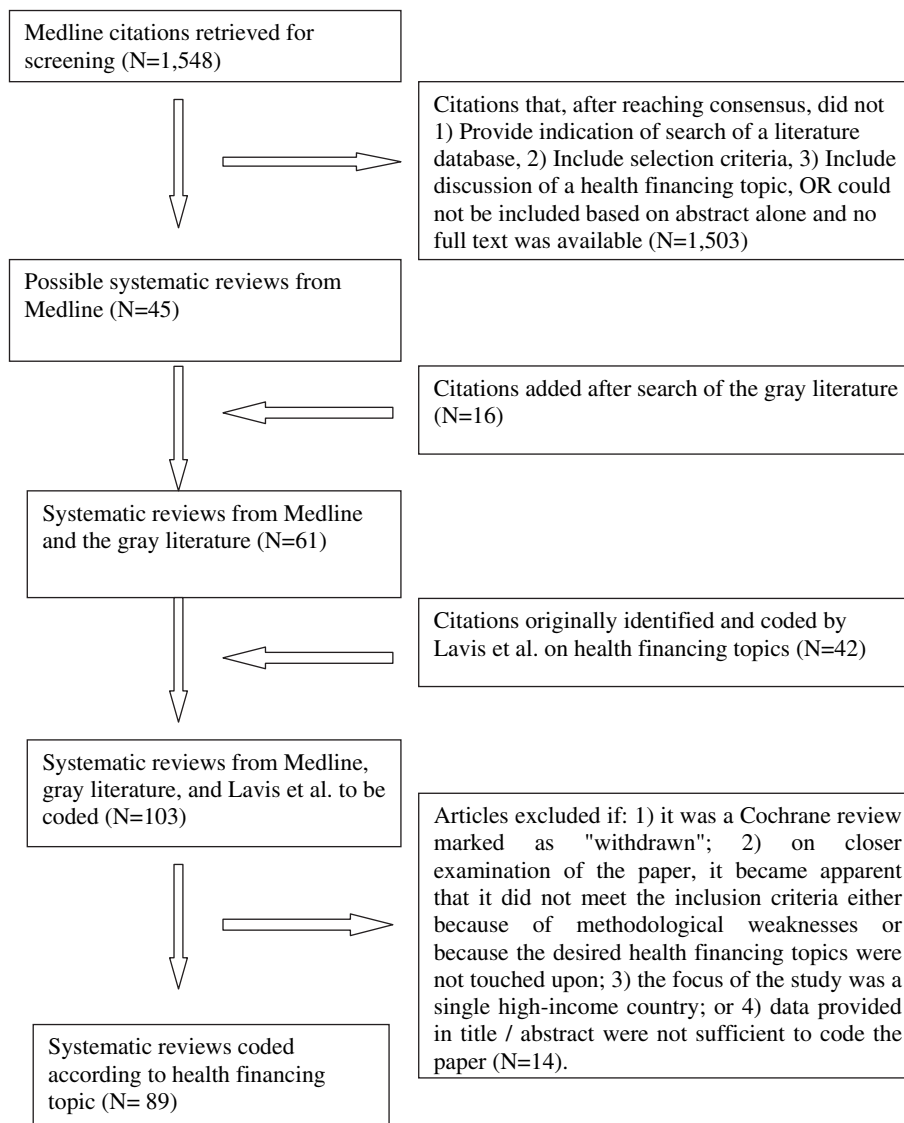


Fig. 2. Development of a set of systematic reviews coded according to health financing topic.

questions. At the workshop, participants: (1) discussed and refined the list of priority research questions; (2) decided on the criteria (nature and relative weighting) to be used in ranking the research questions; (3) ranked the research questions based on three criteria – answerability, potential impact on health and equity, and extent to which relevant research is lacking; and then (4) discussed in some detail the kinds of research that could best address the four questions that ranked highest. Authors of the paper did not participate in the ranking.

Results

Priority research questions

Listed in [Table 2](#) are nineteen priority research questions (categorized according to the conceptual framework and not arranged in order of importance) that emerged from the regional reports. These nineteen questions formed the basis of the priority ranking exercise (see “[Ranking of research questions](#)”, below). The number of priority research questions identified on any one topic corresponds approximately to the frequency with which the topic was discussed in regional reports.

While each priority research question was common to several countries or regions, the more specific ‘sub-topics’ of interest varied quite considerably. For example, priority research question number nine in the table asks, “What are the relative strengths and weaknesses of different purchasing (or provider payment) mechanisms?” In Algeria and Palestine, respondents wondered how to develop mechanisms for contracting with private health care providers and for controlling the costs of health. In Indonesia, there was interest in studying the uses of diagnostic related groups (DRGs) as the basis for payment of health care providers. In Jordan, respondents were interested in a study of the potential financial impact of outsourcing certain non-clinical services, such as laundry, catering, medical waste disposal and blood banking.

Overview of systematic reviews

The Medline search yielded 38 systematic review papers, the gray literature search 15 papers and a further 36 papers were identified from among those previously identified by Lavis et al. (for a total of 89, see [Fig. 2](#)). Among the latter group, four were protocols for reviews, rather than completed systematic review papers, which have been excluded from further analysis. The remaining 85 review papers are plotted in [Table 2](#) against the nineteen priority research questions that emerged from key-informant interviews.

Very few systematic reviews have addressed issues related to resource collection (five studies) or pooling (five studies). Twenty-four studies, particularly from developed countries, looked at the comparative strengths and weaknesses of different purchasing arrangements. Investigators have looked, for example, at targeted payments, capitation, salary, fee-for-service, fundholding and managed care. The body of work in developing countries has focused more narrowly on contracting ([Ensor & Weinzierl, 2007](#); [Palmer, Mueller, Gilson, Mills, & Haines, 2004](#); [Peters, Mirchandani, & Hansen, 2004](#)). There were twenty reviews of the cost-effectiveness of interventions, in both developing and developed countries. For example, Walker looked at the cost-effectiveness of HIV/AIDS prevention strategies in developing countries ([Walker, 2003](#)). Thirteen reviews were related to user fees, and these were diverse in nature. The review by McIntyre et al., for example, reviewed evidence on the household level impact of out-of-pocket payments, and indirect costs of illness ([McIntyre, Thiede, Dahlgren, & Whitehead, 2006](#)). Other reviews looked at the burden of user fees related to treatment of specific

illness categories or risk factors ([Patel & Kleinman, 2003](#); [Reynales-Shigematsu, 2006](#)). Seven systematic reviews have examined the association between socio-economic status and health care utilization or interventions that might lead to improved equity of access. There were three reviews of financial demand-side interventions aimed at increasing the equity of health care utilization. Lagarde et al., for example, look broadly at conditional cash transfers for improving uptake of health interventions in low- and middle-income countries ([Lagarde, Haines, & Palmer, 2007](#)). No systematic reviews looked at the issues of means testing, financial management or corruption.

Questions for future research raised in review papers

From all of the systematic review papers, we also extracted the authors’ comments regarding gaps in existing research and suggestions for future research. We anticipated that this might permit us to remove questions from our list of nineteen (if, for example, authors felt that the field had been exhaustively researched) or tailor our research questions (if the question had been partially addressed, but a more specific question remained). For the most part, however, authors simply noted the paucity of relevant studies, and suggested that more studies, of higher quality, be performed. In particular, authors called for: longer-term and longitudinal studies (e.g. [Jaana & Pare, 2007](#); [Patel & Kleinman, 2003](#); [Walters & Suhrcke, 2005](#)); more studies in developing countries (e.g. [Buxton, Hanney, & Jones, 2004](#); [Kok-Jensen & Viskum, 1998](#); [Volmink & Garner, 1997](#)); studies using a randomized controlled, repeated measures, interrupted time series, or controlled before–after design (e.g. [Austvoll et al., 2008](#); [Gosden et al., 2000, 2001](#); [Kok-Jensen & Viskum, 1998](#)); studies that examine relatively distal outcomes, like patient health status (e.g. [Gosden et al., 2001](#)); evaluations that are carefully planned, prior to implementation of a new intervention (e.g. [Gosden et al., 2000](#)); case study work of improved quality (e.g. [Palmer et al., 2004](#); [Scheppers, van Dongen, Dekker, Geertzen, & Dekker, 2006](#)); and multicentre case studies that look across countries (e.g. [Gaal & McKee, 2005](#); [Palmer et al., 2004](#); [Walters & Suhrcke, 2005](#)). In none of the papers did authors suggest that the existing research was sufficient.

Ranking of research questions

Participants at the workshop discussed the nineteen questions generated from the regional reports, towards developing a common understanding of the questions. In some cases, minor changes were made to the wording of questions so as to make the meaning of the questions clearer. These discussions did result in shortening the list of questions from 19 down to 17. In one case a question was omitted as it was considered to be outside the realm of health economics and financing,¹ and in the second case two questions were merged together as one, as they were felt to be very similar.

Based on a literature review of previous priority setting exercises, Alliance HPSR staff proposed three criteria for ranking the remaining 17 questions:

- Can the research question be answered?
- Is there a lack of research on this topic?
- Are the results of the research likely to be beneficial to social welfare? (This was intended to include both health and equity impacts.)

¹ The following question was omitted: “What is the burden of different diseases (nationally or among certain population sub-groups)?”

Table 2
Priority research questions identified from regional reports, and results of overview of systematic reviews.

Research topic/question	Medline (N = 38)	Gray literature (N = 15)	Lavis et al. (N = 32)
<i>Collection</i>			
1. What method(s) should be used to determine the amount of money to be made available for different programs or projects?	—	—	—
2. How can additional resources for the health sector be mobilized, and what are the strengths and weaknesses of different mechanisms for mobilizing resources?	Borghi et al., 2006; Dixon, McDaid, Knapp, & Curran, 2006	Breman & Shelton, 2001	—
3. What are optimal levels of external/donor funding? What mechanisms can be put in place to ensure that donor funding is driven by national health systems goals?	Sabbat, 1997; Trouiller et al., 2002	—	—
<i>Pooling</i>			
4. How do we develop and implement social health insurance?	Ekman, 2004; Palmer et al., 2004	Mills, 2007	Ekman, 2004; Hadley, 2003; Soderberg & Alexanderson, 2005
5. What is current population coverage under SHI and how can it be increased?	—	—	—
6. What is the equity impact of SHI and how can it be improved?	—	—	—
7. What benefits should be included or excluded from coverage under SHI?	—	—	—
8. How do we ensure that private health insurers contribute towards national health systems goals?	—	—	—
<i>Purchasing</i>			
9. What are the relative strengths and weaknesses of different purchasing (or provider payment) mechanisms?	Akaho, MacLaughlin, & Takeuchi, 2003; Davidova, Praznovcova, & Lundborg, 2008; Ensor & Weinzierl, 2007; Palmer et al., 2004; Peters et al., 2004; Trouiller et al., 2002	Kingma, 2003; Øvretveit, 2003	Carroll, 2002; Chaix-Couturier, Durand-Zaleski, Jolly, & Durieux, 2000; Faulkner et al., 2003; Giuffrida et al., 1999; Gosden et al., 2000, 2001; Gosden, Pedersen, & Torgerson, 1999; Gosden & Torgerson, 1997; Grimshaw et al., 2005; Jang, 1988; Sempowski, 2004; Smith & Wilton, 1998; Steiner & Robinson, 1998; Sturm et al., 2007; Town, Kane, Johnson, & Butler, 2005; Waters, Hatt, & Peters, 2003
<i>Allocation/provision</i>			
10. What is the burden of different diseases (nationally or among certain population sub-groups)?	—	—	—
11. What is the cost-effectiveness of current activities?	Bates, Manyasi, & Medina Lara, 2007; Buxton et al., 2004; Floyd, 2003; Gilmartin & Wright, 2007; Haines et al., 2007; Hyder, Waters, Phillips, & Rehwinkel, 2007; Iglesias, Drummond, Rovira, & Group, 2005; Jaana & Pare, 2007; Kok-Jensen & Viskum, 1998; Pegurri, Fox-Rushby, & Damian, 2005; Sullivan, Metzger, Fudala, & Fiellin, 2005; Walker, 2003; Walker & Fox-Rushby, 2000	Darmstadt, Bhutta, Cousens, Adam, Walker, & de Bernis, 2005; Doran, 2007; Gilbert & Cornuz, 2003; Hutton, 2000; Österberg, 2004; Thornicroft & Tansella, 2003; World Health Organization, 2006	—
12. What is the appropriate allocation of resources towards preventive versus curative care?	—	McKee, 2003	—
<i>Fees</i>			
13. What is the impact of user fees (equity, catastrophic expenditures, quality, etc.)? What can be done to ensure that user fees do not prevent the poor from accessing health care?	Dixon, 2002; Gaal & McKee, 2005; McIntyre et al., 2006; Palmer et al., 2004; Patel & Kleinman, 2003; Reynales-Shigematsu, 2006	Thomson & Mossialos, 2004	Aaserud, Dahlgren, Kösters, Oxman, Ramsay, & Sturm, 2006; Austvoll et al., 2008; Espallargues, Gallo, Mv Pons, & Sampietro-Colom, 2000; Guo & Harstall, 2006; Lexchin & Grootendorst, 2004; New Zealand Health Technology Assessment Clearing House, 1998
<i>Cross-cutting</i>			
14. To what extent do health services currently reach the poorest?	Finger, 2007; Hanratty, Zhang, & Whitehead, 2007; Moreira, Nico, Tomita, & Ruiz, 2005; Say & Raine, 2007; Scheppers et al., 2006	Walters & Suhrcke, 2005	Waters et al., 2003

Table 2 (continued)

Research topic/question	Medline (N = 38)	Gray literature (N = 15)	Lavis et al. (N = 32)
15. What are the appropriate criteria for means testing and identifying the poor?	–	–	–
16. How can demand-side incentives be used to improve equity of utilization?	Lagarde et al., 2007; Palmer et al., 2004; Volmink & Garner, 1997	–	–
17. How can capacity be built for good financial management at the level of health care facilities?	–	–	–
18. How can capacity be built for good financial management at higher levels (district, provincial, national)?	–	–	–
19. How big is the problem of corruption in health systems financing and how can this problem be addressed?	–	–	–

Participants agreed on these three criteria, but decided that the last of these criteria should receive twice the weight of the other two criteria, in the combined index. Each of these criteria was applied to the 17 priority research questions using a five-point Likert scale (1 = no; 5 = yes). Each of the 12 participants assigned scores individually using a self-administered questionnaire. Index scores were then calculated for each individual (applying the above-mentioned weighting) and summed across individuals, giving equal weight to each individual.

Table 3 lists the ten top-ranked research priorities with mean score and range. These values were not sensitive to the differential weighting of the three ranking criteria. When equal weights were applied to the three criteria, the top five questions remained exactly the same, although the order of the 3rd and 4th ranked questions was reversed (these results are not shown).

For the four top-ranked research questions, the group discussed in some detail the more specific research questions that might be addressed by investigators (see Table 4) and appropriate methodologies for addressing the questions. The top-ranked question on universal financial protection was felt to be a high

priority, particularly for countries undergoing rapid political or economic change, where new institutions might be developed to implement financial protection. It was felt that this question could be addressed both with conceptual work (for example, exploring optimal levels of financial protection at the household level, given that “100%” coverage is unrealistic) and field-based research, examining experiences with the implementation and up-scaling of financial protection mechanisms. Participants felt that qualitative methodologies would be useful in addressing the priority questions; for example, comparative, cross-country studies to look at

Table 3

List of 10 top-ranked priorities with mean score and range.

Rank	Question	Score	SD (and Range)
1	How do we develop and implement universal financial protection?	16.83 n = 12	2.7 (10–19)
2	What are the pros and cons of the different ways of identifying the poor?	16.08 n = 12	3.0 (10–20)
3	To what extent do health benefits reach the poor?	15.75 n = 12	2.6 (10–19)
4	What are the pros and cons of implementing demand-side subsidies?	15.58 n = 12	3.0 (9–20)
5	What is the equity impact of SHI and how can it be improved?	15.27 n = 11	2.5 (11–20)
6	What is the cost-effectiveness of service delivery models and health systems strategies?	15.08 n = 12	3.0 (9–19)
7	What is current population coverage under SHI and how can it be increased?	14.92 n = 12	2.5 (12–19)
8	What are the relative strengths and weaknesses of different purchasing (or provider payment) mechanisms?	14.64 n = 11	1.6 (12–17)
9	How can resources for the health sector be mobilized, and what are the strengths and weaknesses (costs, benefits, and willingness to contribute) of different mechanisms and mixes of mechanisms for mobilizing resources?	14.42 n = 12	3.3 (8–19)
10	To what extent or how does corruption affect health systems, and how can the problem be addressed?	14.33 n = 12	2.8 (10–19)

Minimum possible score = 4. Maximum possible score = 20.

Table 4

Examples of more specific questions that key informants thought to be important.

1. How do we develop and implement universal financial protection?	<ul style="list-style-type: none"> - How do we manage the mix of different mechanisms that provide financial protection, such as tax-based funding, social health insurance and community-based health insurance? - What are the different “pathways” that countries take in order to achieve universal protection? - What are the different approaches for measuring financial protection? - How might economic, political and social context facilitate, or hinder, universal protection?
2. What are the pros and cons of the different ways of identifying the poor?	<ul style="list-style-type: none"> - What methods are currently used to identify the poor, in the health sector and in other sectors? - What are the pros and cons of targeting health benefits to the poor, versus expanding total population coverage? - What are the “costs” to society of methods that are not sufficiently sensitive or specific?
3. To what extent do health benefits reach the poor?	<ul style="list-style-type: none"> - If interventions are not reaching the poor, why not? What is the relative importance of supply-side or service delivery problems, versus lack of demand for services? - What strategies are most successful for improving the reach of health benefits among the poor?
4. What are the pros and cons of implementing demand-side subsidies?	<ul style="list-style-type: none"> - What is the impact of different demand-side subsidies, such as cash subsidies and entitlements in kind, conditional and non-conditional subsidies? - What are the pros and cons of demand-side subsidies that are channeled through health care providers? - How do demand-side subsidies impact on health service providers? - Can we draw on experiences from outside the health sector?

“evolutionary paths” towards universal financial protection; or local, small-scale research to determine the kinds of demand-side subsidies that might be culturally acceptable. Participants felt that careful, longitudinal evaluations of implementation could be used to provide evidence related to all four top-ranked questions.

Discussion

The study has several important methodological strengths:

1. The process used in all three steps of the study has been carefully documented and described, and thus should be quite replicable.
2. An iterative process was used to generate the list of questions, favouring those that were expressed by more than one country, and increasing the generalizability to other developing countries.
3. The study sampled a very diverse group of stakeholders, including researchers, policy makers, civil society representatives, and community members – across four regions and twenty-four countries.
4. This study focuses primarily on the research needs of developing countries – few other research priority setting processes have had such a focus.
5. By focusing on a specific theme Health Systems Financing, this study has been able to generate and rank quite specific research questions. Previous priority setting exercises have tended to deal with HPSR in a fairly broad/cursory manner, without breaking research issues down into questions that can easily be turned into aims and objectives for research.

The methodological weaknesses are several:

1. The priorities identified (from Step 1: regional key-informant interviews) largely reflect the views of policy makers. It was observed by researchers (including those assembled for the consultative workshop) that many of the research questions were not very innovative nor forward looking, perhaps because they reflect the challenges that policy makers are facing now. Researchers at the consultative workshop commented, for example, on the absence of research questions relating to performance based financing.
2. Middle-income countries were over-represented in the regional key-informant work (and LICs under-represented). This could be contributing, for example, to the focus on social health insurance versus community-based health insurance.
3. Lack of standardization in study methodology across regions: It is very difficult to compare results, for example, between LAC where a relatively more quantitative (and deductive) approach was used and MENA where the approach was more qualitative (and inductive).

With recent increases in funding for health systems strengthening, there have also been calls for appropriate investments in evaluation and research (Murray, Frenk, & Evans, 2007; Victora, Black, & Bryce, 2007) – the most recent being a call for health systems research and learning in the context of the G8 Hokkaido Toyako Summit (Reich, Takemi, Roberts, & Hsiao, 2008). A review by Palmer et al. (2004) revealed a paucity of “well designed large scale research” (p. 1368) on alternative modes of health financing “and a multitude of case studies offering descriptions of specific experiences but with little methodological rigour” (p. 1369). A more recent bibliometric analysis suggested little or no increase (during the period 2000–2007) in the number of articles focused on

insurance in low- and middle-income countries (Bennett et al., 2008).

This study has demonstrated that despite the considerable differences between countries in terms of the nature of health financing challenges, there is considerable consensus around the type of policy problems faced and the nature of evidence needs. Improved evidence – particularly around universal financial protection, ways of identifying the poor, ways of extending benefits to the poor and demand-side financing – is urgently needed. Focusing investment and activity on a few critical research questions could serve to develop more rapidly a body of generalizable knowledge that can be applied in the policy process. The identified list of high priority, tractable HSF research questions are being communicated to research funders and researchers through Alliance HPSR publications and advocacy work, in order to seek to influence global patterns of health systems research funding and activity. Coordinated action to support and implement research on the highest priority questions identified here, could have major impacts upon health systems finance policies and ultimately the health of the poor.

Appendix. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.socscimed.2010.01.051.

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