

Paper 14

Title: Priority Setting for Collaborative Health Systems Research in India: A Method and the Way Forward

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ABSTRACT

A comprehensive and collaborative knowledge translation and decision-making approach can help reduce the longstanding barriers to using research in policy and practice. Regular interaction between researchers and decision-makers increases the likelihood of using research knowledge. This interaction continuing over the entire research cycle is critical for developing research directions and potential use of the research outputs that benefit the health system.

The India Health Systems Collaborative and ACCESS Health International have conducted a rigorous exercise to arrive at the priority research topics. A consensus-based method customised to the existing need was created, adapting from the Child Health and Nutrition Research Initiative (CHNRI) method for research priority setting. In this method, conducting a literature review, key informant interviews, and survey-based stakeholder consultations are critical steps for identifying policy-relevant research topics that demand utmost attention in the Indian setting.

This paper documents the processes followed to develop a preliminary list of core research priorities requiring urgent attention to facilitate policy development. Additionally, the paper is about the essential and immediate next steps and the critical actions taken to undertake collaborative research on the identified research topics. The special issue of the Journal for Health Management dedicated to strengthening the Indian health system sets the foundation for promoting collaborative research, its dissemination for broader use by researchers, and ensuing policy dialogues.

Keywords: Priority Setting, Health Policy and Systems Research, HPSR, Health Systems Strengthening, Policy Relevance, Evidence-Based Policy Making.

INTRODUCTION:

Setting priorities for health research is fundamental to understanding the impact of investing in programs, policies and strategies in the health system, which is specifically pertinent in resource-constraint countries. Ensuring that research studies align with the extensive community needs is equally important. Evidence suggests that a comprehensive and collaborative knowledge translation and decision-making approach can help reduce the longstanding barriers to using research in policy and practice (Ranson and Bennett, 2009). The available literature on knowledge transfer and exchange highlights the importance of regular interaction between researchers and decision-makers to increase the likelihood of using research knowledge. Such communication also facilitates a better understanding of the contexts and the constraints involved at both ends to better understand the difference in which both groups operate. This interaction continuing over the entire research cycle is critical for developing research directions and potential use of the research outputs that benefit the health system. Additionally, prioritisation mechanisms are crucial to facilitate the current interest for harmonising research at a national and global level (Nuyens, 2007).

A framework for assessing country-level efforts to link research to action highlights the priority setting exercise as one of the four crucial elements. These elements address research production and facilitate converting knowledge into action (Lavis et al., 2006; Centre for Epidemiology and Evidence, 2019). Countries have defined priority setting exercise as a multi-stage continual process including advisory groups at each stage. The stages include planning, collecting data, consulting and involving stakeholders, organising national events, and aligning resources, to name a few. Research priority setting can be at different levels, such as broad thematic level, intermediate topic level, or specific research questions level. Priorities can be defined by the population group, study settings, equity issues, access issues and other social determinants of health. It is essential to analyse the existing relevant information, involve multiple key stakeholders, have strong leadership in coordination and oversight, set robust and transparent criteria, and have earmarked resources for the process to facilitate any priority setting exercise (Sibbald et al., 2009).

Efforts to identify research priorities and their success in the context of British Columbia is well documented in the literature. The literature highlights that these efforts created a conducive and common platform for researchers and decision-makers to establish an agenda for future research. It underlines the importance of priority setting processes to validate the initial research areas posed to the groups and observe the emergence of additional concerns and directions from the decision-makers. This exercise emphasised that the engagement process had benefits in connecting decision-makers with their peers and refinement of ideas within them (Smith et al., 2009).

The criteria to assess priorities involves various determining factors. These include the policy relevance of the research, the extent to which it can address the gap in knowledge, its potential to address inequities, the scope of collaboration and partnership and the return on investment, among others. The bottom-up approach of priority setting recommends the participation of various stakeholders in selecting priority research areas, which has a significant impact on their implementation. Most countries make meticulous efforts to involve stakeholders like policymakers, researchers, healthcare practitioners, and community representatives in some or all phases of the process (Lavis et al., 2006; Schmets et al., 2016).

There are two broad approaches to setting priorities for health research:

1. Use of Technical Analysis: It relies on quantifiable epidemiologic, clinical, financial or other data. This approach depends on the availability of data to drive priority choice, for instance, based on the prevalence of a disease or economic burden of illness.
2. Use of Interpretive Assessments: It relies on consensus among key stakeholders. This approach depends on the iterative, subjective judgments of the stakeholders to generate priorities.

The format of consultation could be face-to-face methods (workshops, focus groups and round tables), remote consultation methods (survey and telephonic methods) or mixed methods (survey/telephonic before face-to-face) (Smith et al., 2009).

More often, when health policy and system research is considered through a technical approach, the whole process of priority setting becomes resource-intensive and under-valued systematically. While conducting a priority setting exercise at the national level, utilising an interpretive approach involving many key stakeholders is the most recommended approach to assigning relative weightage to health systems' research areas or other cross-cutting domains. According to Kaplan (2013), the stakeholders involved in prioritisation include:

1. Researchers: To advance scientific knowledge through the publication of findings
2. Policymakers: To ensure the practical feasibility and cost-effectiveness of research and the expected policies and programs which will be suggested through the research
3. Practitioners: To ensure the degree of optimisation of healthcare through the research
4. Non-governmental organisations: To conduct research by understanding the ground reality that can make a difference to the lives of the population
5. Industry partners: To seek marketability and multi-sectoral collaboration through research
6. Consumers: To ensure the research aligns with the demand of the consumer and impacts their health at an affordable cost

The India Health Systems Collaborative and ACCESS Health International conducted a rigorous exercise to arrive at the priority research topics. The exercise adopted a hybrid approach by conducting a comprehensive literature review to identify the research gaps and involving key stakeholders from various domains who had contributed their expertise in identifying 12 research topics that demand utmost attention in the Indian context. There was a need to document the methodologies involved, adding to the pool of evidence related to priority setting exercises in health systems research.

This paper, therefore, is an attempt to document the processes followed in developing a preliminary list of core research priorities in the Indian context that requires urgent attention to facilitate policy development in various domains of the health system. The paper also discusses the essential and immediate next steps and the critical actions taken to undertake collaborative research on the identified research topics. This paper is meant to strengthen the foundation for promoting collaborative research, ensuing policy dialogues, and its dissemination for broader use by researchers.

METHODOLOGY:

Due to the COVID-19 pandemic and the ensuing limitations, existing standard stakeholder dialogue and consensus methods could not be applied. Most standard methods are based either on workshops or collective thinking or disease-specific research needs. However, for this exercise, a methodology that looks at all aspects of the health system was required. Therefore, a consensus-based method customised to the existing need was created, adopting from the Child Health and Nutrition Research Initiative (CHNRI) method for research priority setting.

A good priority setting exercise should include; the possible approaches to conduct the priority setting exercises; discussions on stakeholder participation and information gathering; use of criteria and different methods for deciding upon priorities; and the importance of well-planned implementation, evaluation and transparency of the exercise (Viergever et al., 2010). Table 1 presents the checklist that was followed for priority setting.

Table 1: Checklist with nine common themes of good practice for health research priority setting.

Preparatory work	
1. Context:	The priority setting exercise was conducted to create, test, and establish the process for setting a research agenda for 1-2 years, focusing on conducting policy-relevant research driven by the need from literature and not the perceived needs of individuals or donor partners. A more consultative and transparent process gives the researcher flexibility to choose the right research question and method. Funds were available to conduct research, and thus the priority research studies could be commissioned. The idea was also to promote collaborative health systems research, capacity building and policy engagement. Also, researching the larger domains of each of the six building blocks is the underlying effort to promote health systems thinking.
2. Use of a comprehensive approach:	Therefore, a new yet comprehensive approach was developed to suit the need. This approach provides structured, detailed, step-by-step guidance for health research priority-setting processes from beginning to end and provides insights into the next steps.
3. Inclusiveness:	All major stakeholders of the health system were consulted to make it comprehensive and ensure that all the stakeholders are represented. Domain experts, academicians, researchers, donor partners, private sector providers and practitioners, associations, industry bodies, and policymakers at national and sub-national levels were included.
4. Information gathering:	Information gathering focused on identifying research gaps from the literature and not just on individual perceived needs. Therefore, stakeholder interviews followed, and a thorough literature review focused on research conducted in India was planned to cull out the research needs.
5. Planning for implementation:	The funding for commissioning research and a small team of health policy and systems researchers was secured, and an elaborate plan for the end-to-end implementation was prepared and executed.
Deciding on Priorities	
6. Criteria:	There were three criteria set for the exercise viz., (i) whether a research gap exists in the specified research area, (ii) whether the study is feasible to be conducted in the Indian context, and (iii) whether the research topic is of policy-relevant or not. Policy relevance was given more weightage compared to the other two criteria.

7. Methods for deciding on priorities: A consensus-based method customised to the existing need was created, adapting from the CHNRI method for research priority setting.

After Priorities are Set

8. Evaluation: Established priorities and the priority setting exercise is planned biennially.

9. Transparency: Maintaining complete transparency is one of the underlying principles of conducting this exercise. The same is practised through sharing final scores through virtual meetings and presentations.

Note: Adapted from Viergever et al., 2020

STEP BY STEP PRIORITY SETTING PROCESS FLOW AND THE WAY FORWARD

A flow chart for quick reference is given in Figure 1, and the details of step 2 are provided in a flow chart in Figure 2

Figure 1: Complete Process Flow

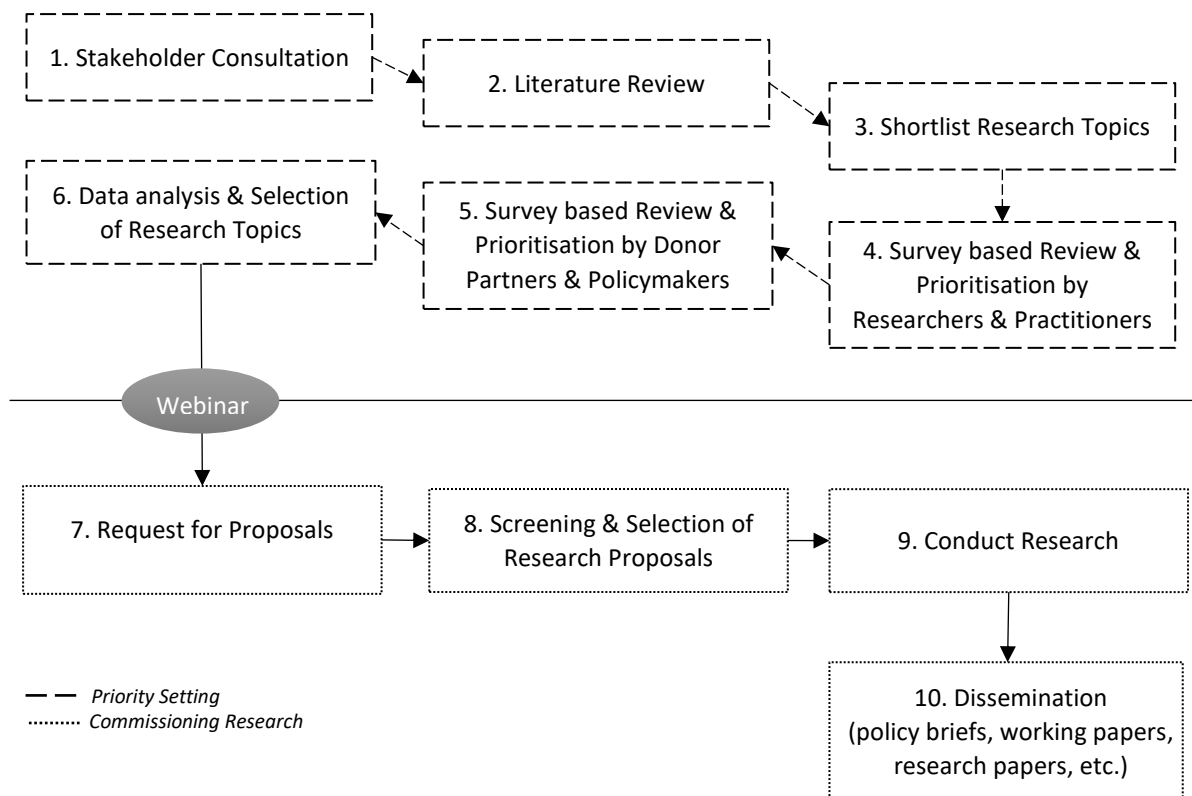
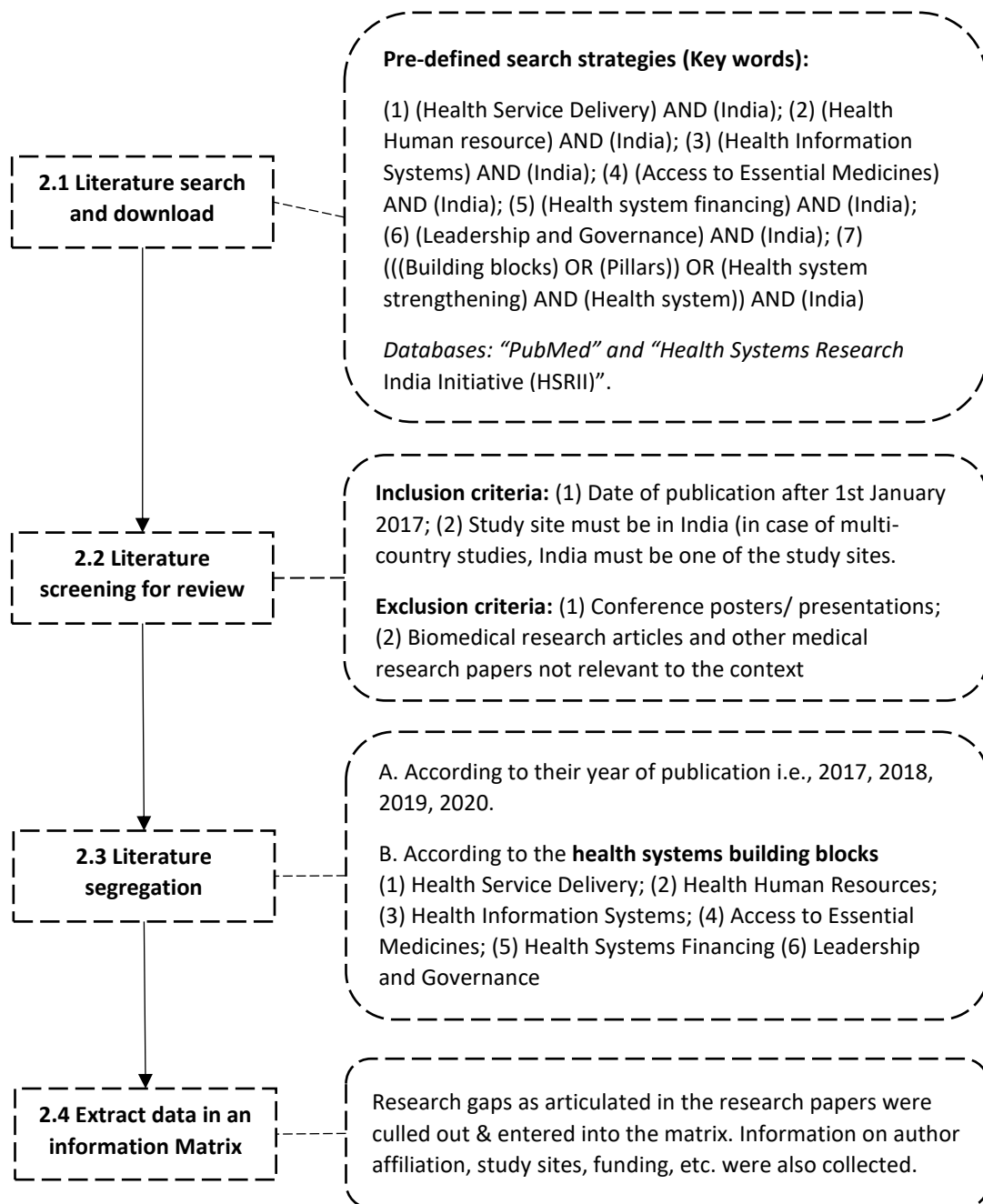


Figure 2: Flow chart describing the process followed for literature review for priority setting



RESULTS:

STEP 1: Interviews with key stakeholders (Key research areas in the health system)

Overall, 57 individual stakeholders were approached through email for seeking appointments for interviews. Twenty-one interviews were conducted, and the interviewees were affiliated to Academic Research Institutions (n=4), Association of healthcare providers (n=2), NGOs/ not for profit organisations (n=5), Donor partners (n=4), CSR (Foundations) (n=3), Private sector consulting organisations (n=2), and Private sector (Corporate Hospital chains/Insurers) (n=1).

The stakeholders opined that health systems research is useful at each level in the management hierarchy, i.e., policy, planning, programming and operational levels. The complexities of the problems being dealt at the respective levels range from highly complex (policy level) to fairly simple (at the operational level). Accordingly, the type of research needed for decision making also varies in complexity and scope. Much of the information required at the operational level can be obtained through simple studies. Such studies can be designed and conducted by health personnel at the district or hospital level. Identifying broad research areas was discussed by many stakeholders, and a bottom-up approach was identified as an ideal way to address the pertinent issues. A need for priority setting also emerged from these interviews.

A comprehensive list was obtained, which covered wide areas of health systems. Collaboration between private and public sectors, innovations and technology in health care, human resources for health, elderly care, health governance, health insurance, urban health are some of the topics that emerged.

STEP 2: Literature review

Table 2: Details of characteristics of literature review

Characteristics	Details	N= 1,127	n (%)
Database	HSRII*	245	21.74 %
	PubMed	882	78.26%
Type of Publication	Journal articles	1,086	96.4%
	Documents from Government organisations	25	2.2%
	Documents from Private-sector organisations	12	1.1%
	Documents from Development partners	3	0.3%
	Books or E-books	1	0.1%
Health System Building Blocks	Health Service Delivery	487	43%
	Health Information systems	170	15%
	Health systems Financing	133	12%
	Leadership and Governance	91	8%
	Health Human Resource	87	8%
	Access to Essential Medicines	52	5%
	Cross-cutting (addressing 2 or more building blocks)	60	5%

**Health Systems Research India Initiative*

To accomplish this exercise, 2,068 research papers and reports were screened, and 1,127 were used for data entry. All details such as the title of the paper, year of publication, authors information, study sites, and clearly articulated research gaps were culled out from the literature and entered in a data extraction sheet. From the literature, 464 broad research areas were identified.

STEP 3: Shortlisting of Research Topics

A team of health policy and systems researchers, through a re-iterative process, collectively worked on the 464 broad research areas to finalise a list of 60 policy-relevant research topics, i.e., 10 research topics per health system building block.

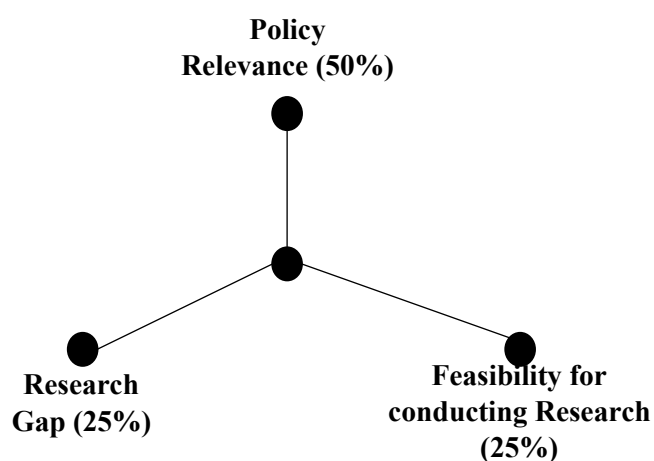
Table 3: Outcome of the literature review exercise

Outcome	Total numbers
Research papers screened	2,068
Data entered	997
Broad research areas identified	464
Research topics formulated (first iteration)	150
Research topics formulated (second iteration)	60

STEP 4: Review and prioritisation by researchers and practitioners

Academicians and practitioners of the health system were reached out through a survey to review the research topics identified through the iterative process. The survey tool/ Google form was divided into six sections. Each section had 10 research topics, and each research topic was assessed and scored based on three criteria viz., Policy relevance, Research gap, and feasibility for conducting the research. Stakeholders were asked to assess the research topics based on the criteria mentioned above and select their choices as Yes/No against each topic. Policy relevance being the prime focus of the exercise, it was assigned the maximum score (i.e., 50 percent of the total score). The research gap and research feasibility were given 25 percent each (as shown in Figure 3). For analysis, the total score assigned to each research topic was 20. The total score obtained for each research topic for each building block was calculated, the average score was then arrived at. The top 5 research topics per section were shortlisted based on the average scores obtained. Therefore, a total of 30 research topics were shortlisted through this process.

Figure 3: Criteria for priority setting



The top 30 research topics shortlisted from Step 4 are given in Table 4:

Table 4: The list of top 30 research topics according to the building blocks

Building Block	Research Topics
Access to Essential Medicines	Explore role of E-Pharmacies, a proposed regulatory framework and a potential strategy to alleviate India's medication access crisis
	Effect of drug price control order on availability, accessibility, and affordability of medicine

	Assess the availability and affordability of NCD/non NCD medicines in non-metropolitan urban & rural India
	Determine content & gaps in current database on drug availability/production standards and quality
	Prescription practices in health systems and root cause analysis- public and private and effect on rational use of medicine
Health Systems Financing	Cost-benefit analysis of telemedicine interventions
	Effectiveness of provider contracting under PM-JAY (access, financial protection)
	Exploring innovative financial mechanisms for emergency preparedness and risk reduction
	Resource allocation & expenditure targets for realising SDG 3.8 goals at a state level
	Supplementary financial burden of CVD treatment among patients enrolled and seeking care through PM-JAY
Health Information Systems	Assessment of utilisation patterns under PM-JAY and their correspondence with Indian global burden of disease
	Analysis of data reporting structures adopted and use of information across Indian states during the COVID-19 pandemic
	Assessment of gaps in PM-JAY insurance information systems in context of global best practices
	Examine contextual factors influencing the acceptability, accessibility, and usability of m-health by beneficiaries and community members
Health Workforce	Potential for integrating Patient Reported Outcomes (PROs) into patient feedback loops at a facility and a community level
	Assessment of current burden of service delivery on ASHAs/ANMs and the potential role of Multipurpose Health Worker in task sharing
	Determining impact of varying incentive structures (financial and non-financial) to CHWs and their impact on worker performance and motivation
	Assessing competency of Community Health Workers to use digital health technologies in public health programs in India to improve operational efficiency
	Determining sustainable institutional models for ensuring continued education and skill enhancements of HRH in India
	Determining impact of varied models of MNCH coaching on morale, quality and skill retention of frontline workers
Leadership and Governance	Documentation and review of cross sector collaboration undertaken in select Indian States in response to the COVID-19 health emergency
	Impact of increased financial inclusion on care seeking patterns of women in India
	Impact on behaviour change messaging on COVID safety practices in rural & urban India.
	Analysing policy framework, strategies, and existent bottlenecks for realising SDG 3 targets at State level
	Determining role of community engagement in design of primary care models addressing NCDs
Health Service Delivery	Identifying factors contextual to Indian public health facilities that influence the successful implementation and replication of digital health solutions in rural India
	Determining accessibility of mental health care in rural India
	Implementation research to assess the capacity of HWCs to deliver comprehensive primary care services
	Proposed design for integration of palliative care models into primary care provision: Current State level trends and missing gaps
	Benefit Incidence Analysis for PM-JAY in an Indian State

STEP 5: Review and prioritisation by Policymakers and Donor Partners

To arrive at the top priority research topics, policymakers and donor partners were reached out, through email, with a request to rank the research topics for which research studies could be initiated. The prioritisation of topics was completed through an online survey using the SurveyMonkey platform.

The SurveyMonkey form had six sections, i.e., one section dedicated to each of the six health systems building blocks. Every section had five research topics listed. The stakeholders were asked to rank the topics in the order of one to five according to their policy relevance in the Indian context. The first rank implies the highest priority, and the fifth indicates the lowest priority. Therefore, the top-ranked research topic was assigned the highest weightage, and the fifth-ranked topic was assigned the lowest weightage. Therefore, every respondent had given a rank to every research topic.

The data analysis was also carried out separately for each building block. The research topics were listed along with their respective scores. Finally, the topics were sorted in descending order of their scores and the top two research topics from each section/building block were selected. A total number of 12 high priority policy-relevant research topics were selected. The top 12 topics shortlisted from Step 5 are given in Table 5:

Table 5: The list of top 12 research topics according to the building blocks

Building Block	Research Topics
Access to Essential Medicines	Prescription practices in health systems and root cause analysis (public and private) and effect on the rational use of medicine Assess the availability and affordability of NCD/non NCD medicines in non-metropolitan urban & rural India
Health Systems Financing	Effectiveness of provider contracting under PM-JAY (access, financial protection) Resource allocation and expenditure targets for realising the SDG 3.8 goals at a state level
Health Information Systems	Assessment of gaps in PM-JAY insurance information systems in the context of global best practices Assessment of utilisation patterns under PM-JAY and their correspondence with Indian global burden of disease
Health Workforce	Assessment of the current burden of service delivery on ASHAs/ANMs and the potential role of Multipurpose Health Workers in task sharing Determining the impact of varying incentive structures (financial and non-financial) to CHWs and their impact on worker performance and motivation
Leadership and Governance	Analysing policy framework, strategies, and existent bottlenecks for realising SDG 3 targets at State level Determining the role of community engagement in the design of primary care models addressing NCDs
Health Service Delivery	Implementation research to assess the capacity of HWCs to deliver comprehensive primary care services Benefit Incidence Analysis for PM-JAY in an Indian State

AFTER PRIORITY SETTING

Call for Proposals

The high priority research topics were studied succinctly to prepare a broad scope of work. A request for proposal (RFP) was carefully drafted and floated publicly. The RFP included a few important clauses for promoting collaborative research. The clauses included joint application with an active research partner, role clarity of each partner, research partner profiles, team members profiles and documentary evidence of experience in the desired domain of work or the specific health systems building block. The purpose is to improve networking and collaboration among health system researchers within India.

A webinar was conducted to make the process transparent and for a better understanding of applicants. In the webinar, the research topics were briefly described, the expectations from applicants were carefully noted. The entire process from floating the RFPs to selecting the research partners was also explained to the researchers.

Review of Proposals

A virtual pool of domain experts was constituted to review the research proposals. One sub-committee for each health systems building block was constituted. The size of the sub-committee was dependent on the number of proposals under each building block. Every proposal was reviewed by three external reviewers and one internal reviewer. The reviewers were carefully chosen to avoid any conflict of interest.

Additional eligibility criteria for final selection were put to practice to ascertain that good quality proposal are selected. Each proposal was expected to reach a threshold of a minimum of 50 percent marks of the total score against each criterion (sum of scores by all four reviewers on individual criterion) and another threshold of a minimum of 60 percent marks of the combined score (sum of total scores by all four reviewers on all criteria). Therefore, even if a research proposal had the highest marks but did not meet the quality criterion, the proposal was disqualified.

Execution and Dissemination of Research Studies

The experts meticulously reviewed the proposals, and 11 research groups were selected to take up the research studies under six building blocks. However, due to contractual limitations, only seven studies finally could be taken up, and only six studies were finally completed amidst the pandemic restrictions. These studies were conducted over one year, and results are being published through this special issue in the Journal of Health Management.

CONCLUSION

Translating research gaps into research studies and supporting them technically and financially is a very complex process. The most critical part of this process is its collaborative nature. A need-based model for priority setting was created, executed, and documented through this one-time exercise. The model is now being tested through stakeholder consultations at different levels. In the near future, the next steps in this direction would involve alterations in the model based on past learning and the existing needs. Regular consultative course corrections will further enhance the robustness of the model. The cross-learning opportunities that collaborative research brings along is a vital added advantage.

At the core of this collaborative work is the trust between team members working together. This trust is a result of the transparency maintained throughout the process. However, the sustainability of such initiatives significantly depends upon the quality of research outputs and policy uptake. The dissemination of research work through publications, conferences and wider circulation will help in keeping the momentum.

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