



No: PHC/Conv & Tech/IR/2023/SHI

4th September 2023

Request for Expression of Interest (EOI)

**for ICMR's Multistate Implementation Research Study on
"Structural convergence, integrating programmes and leveraging technology for
better enabling healthcare teams for delivery of equitable, high-quality primary
healthcare services through Health & Wellness Centres"**

The Indian Council of Medical Research (ICMR) is seeking Expressions of Interest (EOI) to participate in a multistate research study aimed at developing implementation strategies and mechanisms for structural convergence of health and related programmes and effective use of technology, particularly digital technology, to enhance access to high-quality, equitable healthcare services through primary healthcare institutions, including Health and Wellness Centres (HWCs).

Overview

The study will focus on developing models for structural convergence and integration of various health and social welfare schemes and programmes, and leveraging the use of technology, particularly digital technology, to enhance the capabilities and functions of the current healthcare teams to deliver high-quality and equitable primary healthcare services. The goal is to enhance coordination among different departments and sectors, maximize resource utilization, and reduce inequities in access to quality healthcare services by appropriate use of technology. This initiative is crucial given the existing social inequalities and the challenges in ensuring access to primary healthcare services. The research will contribute to the broader goal of inclusive development and better health outcomes for all, including the marginalized and vulnerable populations.

A. Health and Healthcare Responsibility and Challenges

The primary responsibility for health and healthcare lies with the health departments. However, numerous factors that influence health and healthcare access fall outside the health system's purview. The Government of India (GoI) has implemented various policies and programmes aimed at the welfare and development of people, particularly the marginalized and vulnerable. These departments operate within their own boundaries, often resulting in a lack of coordination and concerted efforts, which prevents the programmes from achieving their full potential.

B. Overlapping Services and the Role of Convergence

Services overlap among various sectors, such as maternal and child healthcare services by the ICDS and NHM, wellness activities by the education department and the HWCs, care for the needy by various social welfare schemes, and livelihood and social capital improvement by various other departments. The Panchayat Raj Institutions (PRIs) play a crucial role in implementing and coordinating health and welfare programmes in several states. PRIs promote community engagement, particularly for the uptake of government programmes, and this can be enhanced concerning health and healthcare programmes. There is a

recognized need to ensure unity of purpose and promote teamwork to better align the existing services, schemes, and programmes with local needs. Multi-sectoral convergence has been identified as having the potential to improve health and address equitable, high-quality healthcare access in the context of the National Health Mission.

C. Need for technology leverage

Technologies, specifically digital technologies, have become indispensable in primary healthcare, offering vast potential to achieve the goals of Ayushman Bharat. These tools promise better access, especially for marginalized areas and under-resourced settings, enhancing the quality, safety, and cost-efficiency of healthcare services. While digital health paves the way for equitable access to healthcare, several challenges persist, necessitating innovative, context-specific solutions. The shift from traditional healthcare facilities to home-based solutions, like telemedicine and remote care, exemplifies the move towards an integrated, patient-centric model. The trend gains validation through technologies supporting home monitoring, personalized information access, and patient safety, especially in primary care settings. Notably, services like home monitoring, encompassing digital blood pressure devices, medication fine-tuning, and non-invasive tools for blood and urine analysis, along with innovations like handheld ultrasound devices (like the butterfly handheld ultrasound) and blind ultrasound sweep technology tailored for resource-limited environments, contribute to this validation within the realm of primary care.

The Ayushman Bharat Digital Mission (ABDM) aims to revolutionize India's healthcare by emphasizing the power of digital tools. Designed to enhance healthcare access, efficacy, and transparency, ABDM focuses on a unified, digitally connected system. It underscores teleconsultation's pivotal role in granting timely, quality healthcare even to the remotest regions, reducing delays and facilitating necessary referrals.

However, it is crucial for healthcare managers to have the expertise and resources to adopt appropriate technology/digital solutions. Elevating the digital health literacy of the public is equally essential to empower and safely guide them in the digital realm. While technology can bridge care gaps in remote areas, its application in primary healthcare, especially in hard-to-reach locations, poses unique challenges. It is recognized that inter-sectoral coordination, infrastructure, and active community participation are vital to leverage the full potential of technology use in primary health care.

D. The Need for Innovative Models and Strategies

The need for leveraging technologies, mainly digital technologies, and convergence within and among various departments and programmes has been identified as having the potential for inclusive development, including health and healthcare access. For example, the Government of India has made efforts through its 15th Finance Commission to provide funds to PRIs to strengthen primary healthcare based on local needs. Despite the PRIs being a vital part of the implementation mechanism for various schemes and programmes, they have been entrusted with health functions, funds, and functionaries in very few states. Challenges identified in convergence include isolated programme goals and implementation, power conflicts among partners, and a lack of practical guidance or operational mechanisms at the implementation level.

Adopting technology, particularly digital health technology and inter-sectoral coordination/convergence of programmes across health and other sectors (like social

welfare, telecommunications, information technology, educational and local governance institutions, etc.) is critical for equitably achieving access to high-quality healthcare. And several implementation challenges concerning the convergence and adoption of technologies necessitate the implementation research.

In this background, ICMR invites EOIs to develop implementation models and mechanisms for structural convergence and adoption of technologies to enhance the quality of primary healthcare in an equitable manner.

Priority Research Question

How can structural convergence, integration of schemes and programmes, and leveraging technology - mainly digital technology, be better aligned to enable the healthcare teams to deliver high-quality, equitable primary healthcare services, particularly by the Health & Wellness Centres?

Objectives

1. Situational analysis of existing coordination among various departments/institutions and technology use in primary healthcare settings.
 - i. Identify shared objectives across various departmental programmes and schemes that can be used to promote convergence, leading to improved health, development and access to primary healthcare.
 - ii. Understand the facilitators and challenges for collaboration among departments to enhance coordination, convergence, and integration of schemes and services, with the goal of improving population health and primary healthcare access.
 - iii. Assess how well existing digital and other technology services align with local health needs.
 - iv. Identify the facilitators and barriers in the adoption and utilization of existing digital and other technologies in primary healthcare.
2. Co-develop and co-test feasible solutions to overcome the challenges in inter-sectoral convergence/coordination and leveraging the technology to deliver high-quality equitable primary healthcare services, particularly by HWCs.
 - i. Implement the developed implementation models with a partnership approach for improved uptake of various social and healthcare services, including digital health services.
 - ii. Identify specific digital health technologies/mobile apps that would match local health needs and integrate them into the existing digital health ecosystem.
 - iii. Document the processes and mechanisms of convergence to serve as a guide for future convergence efforts.
3. Evaluate the impact of the implemented models/strategies on the quality of, and access to primary healthcare services, specifically by the vulnerable and hard-to-reach populations.

Expected Outcomes

1. The proposed convergence models and modalities for improved inter-sectoral/departmental coordination for smooth/coherent coordination to foster synergies among various government programmes and schemes, thereby enhancing their planning and processes, including infrastructure and implementation, leading to improved health outcomes and access to primary healthcare services including digital health services.
2. The developed implementation models would lead to increased and improved adoption of digital and other technologies to enhance the delivery and uptake of high-quality primary healthcare services equitably.
3. It is expected that these models have the potential to serve as templates for future convergence efforts and for the creation of state-level Programme Implementation Plans (PIPs).
4. Improved access to information (digital literacy) on various social services, including health and healthcare, utilizing the novel communication and technology platforms and existing programmes.
5. Increased uptake of health services, as measured by healthcare utilization /digital health access to the people living in hard-to-reach areas.
6. Adoption of digital platforms and other technologies in the HWCs and other primary healthcare institutions and structural coordination of primary healthcare teams with relevant local departments/institutions.

Research Design/Approaches

Various implementation research frameworks/theories/approaches (like Consolidated Framework for Implementation Research (CFIR); Health in All Policies (HiAP); Normalization Process Theory (NPT); Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM); Whole-of-Government Approach (WGA), etc.) may be adopted. The implementation research methodology should incorporate mixed-methods approaches along with participatory methods.

Target Population

The scope of this study encompasses a district or larger block within a district. This includes the overall district health system and general administration. Consequently, the communities served by these entities will be the beneficiaries of this research.

Methods

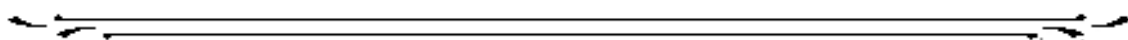
Setting/Local Context of Implementation Research: The proposal should detail the key characteristics of the chosen district, including its administrative/organizational structure covering health and other related departments/institutions, topography/geography, socio-demographic profile, current health indicators, and use of technologies in health and other governmental sectors. The rationale for selecting this specific district/block should also be clearly articulated.

Duration of the Study: The study is projected to last up to 3 years. An additional period of 3-6 months can be allocated for preparatory activities without incurring extra costs.

Formative Research/Situational Analysis: This phase, lasting 6-9 months, is designed to address objective 1, mentioned above. The focus will be on understanding the current situation and gathering the information for planning and executing the proposed implementation research.

Implementation Phase: The actual implementation plan will evolve, in detail, from the situational analysis phase. However, indicative implementation strategies are to be described in the proposal.

Documentation and Evaluation Phase: The proposal should specify the tools for documentation and evaluation, and which methods will be used to document concurrently. Evaluation methods, including outcome indicators, should be detailed in the proposal in line with the objectives of this implementation research.



Format of Expression of Interest (EOI)

(to be submitted as a single PDF file for components A to E)

A. Rationale of proposed study including the choice of site (state and district) to be included where the implementation research shall be carried out (<1000 words)

The proposal should clearly state the rationale for the study, the recommended site (preferably a district) and the likelihood of utilization of the model by stakeholders in the future. The proposal can also provide evidence from previous research on the topic nationally or globally and describe any district or state-specific challenges related to implementation for the target group(s).

B. Implementation Strategy (<2000 words)

A detailed description of the implementation strategies, including the target population and implementation components/strategies, is to be provided. It may include preparatory activities, mapping, a timeline (Gantt Chart), implementation steps, outcome measures, data management and deliverables.

C. Feasibility of scaling up the strategies into the system (<500 words)

Address the feasibility and scalability of the proposed intervention or policy, including the resources needed for implementation, the capacity of the implementing organizations, and the potential for broader adoption and scale-up.

D. Research Team (<500 words)

The research team must include state/district health system personnel (implementers) and those responsible for technology development and implementation, as project collaborators/Co-PIs. Personnel from other government departments are also to be part of the research team. Summarise and justify the composition of the research team based on the expertise of the individual team members in designing and implementing the project. Also, highlight the skill set and expertise the members shall bring to the research

team that the ICMR shall constitute for developing the final protocol and research project implementation plan.

E. Established relationships with state and district and primary health care systems (<500 words)

This implementation strategy aims to optimally achieve structural convergence and integrate and enhance technologies/digital health/telemedicine, etc., for equitable, high-quality primary healthcare services. Include the potential stakeholders and participants, including state and district health systems and other systems responsible for developing and implementing these technologies in the health system, and mention the collaborations that have been existing/established. A document showing this collaboration is required.

Additional Documents to be Uploaded

1. Endorsement letter from the head of the organization of the PI

A letter from the head of the organization of the PI stating that the concerned employee is allowed to take up this research and that the organization will provide all administrative and accounting support to the project, including periodic auditing, is to be uploaded. A list of co-PIs/collaborators is to be shown in this letter.

2. Illustrative budget outline (limit to one page)

The final site-wise budgets for the proposal will be developed by the selected research team(s) under the guidance of ICMR. However, while submitting the EOI, an estimated budget outline under the following headings - staff, recurring contingency, travel and equipment, is to be uploaded. No budget justification is required at this stage.

3. One-page CVs of the principal investigator and other key investigators

Please provide one-page CVs of the PI and other key investigators. Each one-page CV should include the following:

- Name and contact details
- Academic and professional qualifications
- Current position and affiliation
- Up to five most relevant previous research grants
- Up to five most relevant publications

4. Other letters/documents showing collaboration

Please provide letters/documents showing collaboration with state/district health department and other institutions.

Review Process

The EOIs received in response to this call will be reviewed and shortlisted by a committee of experts. The EOIs will be evaluated based on the composition of the research team, study design and other methodological issues, prior research experience, feasibility of implementation, engagement with the health system, potentiality for scale-up, etc. The ICMR team will screen the EOIs for technical accuracy and eligibility. The shortlisted teams will be invited to collaborate to develop a detailed proposal under the guidance of

ICMR. An independent committee will review the final proposal for consideration for funding. Please note that only shortlisted PIs will be contacted.

Who can submit the EOI?

The EOI can be submitted through ONLINE MODE only by scientists/faculty/professionals/administrators who have regular employment in medical institutes/research institutes/universities/colleges/government, semi-government and non-government organizations (documentary evidence of their recognition, including DSIR certificate, should be available).

Points to be kept in mind while submitting the EOI

1. The EOI must address the research question that is mentioned in the call.
2. Collaborative, interdisciplinary, innovative research initiatives involving the state/district health system and other governmental departments will be encouraged.
3. Descriptive studies, systematic reviews and secondary data analysis will not be considered.
4. The study should focus on outcomes that are translatable into policy/programme.
5. The use of indigenous technologies and solutions relevant to the Indian context may be prioritized.
6. Foreign collaborations/Pis from international institutes are not eligible to submit the EOI.

Interested researchers should fill out the Google Form at the below link and submit an EOI as per the format prescribed.

Submission link

<https://forms.gle/DR3pVeGVbrMARSBz9>

Timeline

<i>Activities</i>	<i>Dates</i>
Release of call	4 th September 2023
Last date for submission of EOI	25th September 2023 5 th October 2023
Shortlisting of EOIs	9 th October 2023
Proposal development workshop	16 th -27 th October 2023
Submission of a full proposal	31 st October 2023

For any queries related to this call, please contact:

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