



Perspective

Mainstreaming implementation research: A strategy for advancing policy and practice

There is a growing recognition that high-quality implementation research (IR) is critical as an evidence base for health policy, programme and practice. Implementation barriers are believed to be significant obstacles to the performance of health systems in India and other low- and middle-income countries (LMICs).

Being comparatively a new field, different schools of thought have led to various definitions of IR¹. According to the World Health Organization (WHO), IR is a methodical and organized way to understand hurdles in implementing health interventions, strategies and policies and find ways to remove or minimize the barriers, so that the implementation becomes impactful and of high quality². Simply put, IR helps to understand why and how an evidence-based intervention is successful in one real-life setting at the population level and fails dismally in another.

The interest in IR has been reignited due to tardy progress in achieving the Sustainable Development Goals (SDGs). A midterm review of the progress of the roughly 140 targets for which data is available shows that about 88 per cent are off track³. IR has the potential to accelerate progress towards achieving the SDGs and broader goals such as universal health coverage, especially in LMICs like India.

It is recognized that the suboptimal performance of the health systems and poor incorporation of research products and policies/strategies into health programmes have been an area of concern in most of the LMICs. To address some of these gaps, initiatives taken by the MoHFW include setting up of the National Knowledge Platform (NKP) for health systems and public health research⁴; and the National Healthcare Innovations Portal (NHInP)⁵. Furthermore, the National Health Authority (NHA) has engaged with WHO and several leading Indian research institutions for IR on National Health Insurance Schemes (NHIS)⁶. The Department of Health Research (DHR) enunciated

a knowledge management policy⁷ and also plans to set up a knowledge management forum. The Indian Council of Medical Research (ICMR) has remodelled one of its institutes to become the National Institute for Implementation Research on Non-Communicable Diseases (NIIRNCD) at Jodhpur, Rajasthan⁸, rejigged its extramural research programme to give prominence to IR and also given out calls for 'expression of interest' to fund IR studies⁹. ICMR has identified IR as one of the five pillars of the ICMR Strategic Plan and Agenda, 2030, and now with the *Indian Journal of Medical Research* bringing out a special issue on IR is a further testimony to ICMR's commitment to IR¹⁰.

As the apex institution for medical and health research in the country, the stewardship role of ICMR/DHR is critical. It has a guiding role in taking forward IR by helping to steer and facilitate its promotion and implementation within ICMR and among its partner institutions. These could include strengthening capacity across the country in conducting IR and using data so obtained for health policy making and practice. Clearly, for IR to achieve its full potential, it needs to be mainstreamed^{6,11}. Experience from some LMICs shows that for the successful institutionalization of IR, there are three core pre-requisites namely committed funding, capacity building, and co-production. Each is critical, but insufficient by itself. Mainstreaming or institutionalization of IR sits squarely within the mandate of ICMR/DHR as it plays a leadership role in and contributes to science and policy integration in India¹⁰.

Mainstreaming is of course, not new to ICMR/DHR. An eloquent example is Health Technology Assessment (HTA) in India, the DHR has established an in-house Secretariat, a Board, Technical Appraisal Committee and Regional Resource Centres¹². India is also one of the five countries where in-country hubs have been established by the WHO to institutionalize and sustainably promote the IR model¹³.

Core pre-requisites for mainstreaming of implementation research (IR)

Funding: ICMR/DHR is perhaps the largest publicly funded health research funding agency in India. Funding IR is part of its mandate¹⁰. In view of the large number of definitions of IR, agencies undertaking IR funding should indicate their working definition, and also clearly articulate the criteria that will be used to score, evaluate and assess IR project proposals.

A review of the investing approaches/strategies adopted at the global level by various funding agencies can be considered important when supporting IR in LMICs; these can be broadly categorized as follows¹⁴:

One, keeping the end-users including policymakers, programme managers as well as the community engaged right from inception through the various stages of the project (before, during and on conclusion). This includes asking their concerns and the programme's research needs and letting them know how and at what stage would their contributions be most valuable. These interactions lay the foundations of the success in utilizing the research results including scaling-up of the intervention. The funding agencies can mandate and facilitate such partnerships.

Two, teaming up with other funding agencies, particularly those, which have experience and a committed/specified programme for IR funding, to better understand the nuances of funding IR (learning-by-doing). This helps them to define their own approach in this space.

Three, supporting the growth and development of IR as a speciality. This is done through encouraging the development of new definitions (even for IR), novel and better study designs, innovative frameworks, advanced methods and approaches which entail collaboration with other disciplines and sectors.

Four, partnering with other agencies which fund IR, and have common strategic objective(s). This approach results in a combined and stronger base of skills, expertise, experience and funds. Funders even come together to provide grants to a third party to operate a programme for them.

Five, promoting human resource development activities within and without the IR research projects. IR is a relatively new discipline; there are limited number of researchers, few experts and fewer mentors. To address this gap, the funding agencies support training programmes for academia/researchers as well as for

the employees of funding agencies through the award of fellowships, assistance in writing grant applications and offering resources to guide researchers.

Six, drafting and enunciating/circulating the yardstick that the agency would use to mark and review grant applications (key ingredients for a successful application). This can help to improve the quality of grant applications as the researchers make efforts to include all those points in their applications.

Seven, making sure that IR results and competencies are absorbed into the health system, thus building in-country expertise. This can be done by prioritizing those grant applications which aim at absorbing IR skills into the health system; supporting studies, which address how IR can influence policy and funding projects aiming to identify factors that may help to create networks capable of promoting and strengthening the links between researchers, policymakers and programme managers.

Funding agencies may like to indicate what is their strategy for funding IR and earmark adequate funds for it, keeping in mind the country's need for IR.

Human resource development: Broadly, there are two categories of human resources that need to be developed. One is those who conduct IR and the second is those who manage IR.

Implementation researchers: Having a critical mass of people, skillful in generating, and applying IR routinely and consistently, in all areas including communicable diseases, nutrition, maternal and child health is a core pillar of mainstreaming. There are several training opportunities that are available to researchers in India, for example, the Global Alliance for Chronic Diseases' Implementation Science e-Hub nested in the ICMR, which provides an online opportunity for the development of understanding, expertise, skill set in IR, with a focus on chronic and non-communicable diseases¹⁵.

Funding agencies which provide fellowship programmes for young scientists can be utilized for training in IR by identifying a number of slots for the purpose, they can even invest in partnerships that create opportunities for training and memberships. Provision of seed money or small grants to young professionals can ensure 'learning-by-doing'. Equally important is to impart the skills to researchers to succinctly describe the results of research in easy to comprehend language for policymakers and programme managers as

actionable summaries. Initiating an evidence-informed policy network in the country, in collaboration with and support from WHO could be catalytic¹⁶.

Implementation research (IR) managers: The scientific staff managing the extramural research programme for IR at the funding agencies should have training in the art and science of implementation research. Staff with public health background and trained in IR do better as grant managers than those who have ‘general research experience’, which does not necessarily translate into implementation knowledge. Capacity building linked to IR needs to be built into all stages of grant-application evaluation and management. All of these issues have important bearing on success of an IR funding agency, as the role of the agency and the staff managing IR goes beyond evaluating and funding IR grant applications¹⁷.

Co-production: Co-production in IR means when the funders, researchers and key stakeholders work together and own the results of research. Through co-production stakeholders, the chances are that the stakeholders will be more involved in the entire exercise and also use the results of the research to bring about a change in the policies and health programmes¹⁸. Funders generally play a facilitator’s role, while the ICMR also conducts research. The ICMR and its institutes are uniquely positioned to build long-term partnerships with governments – both at the Centre as well as the State level. Having a core group of personnel trained in IR lead, this activity would be extremely helpful. As the ICMR Institutes are theme-based, they could also play a leadership role in conduct of IR research and supporting the co-production of IR in that area.

An example of co-production of IR is the endemic goitre experiments in Kangra Valley during 1950s-1960s. The research implemented by the Government of India, Punjab Government and ICMR not only generated evidence of the burden and development of effective interventions but also in clearly demonstrating the impact in reducing goitre prevalence in the study population as compared to controls. The study culminated in the formulation and implementation of a successful national goitre control programme¹⁹. A more recent example is the India Hypertension Control Initiative – an initiative involving the MoHFW, ICMR, State Governments and WHO-India. It is demonstrating the feasibility of implementing protocol-based hypertension treatment and control supported by a reliable drug supply and

accurate information systems at scale in Indian primary healthcare facilities.

In conclusion, India is emerging as a voice and leader of the Global South. One of the obstacles in improving health indicators in the LMICs and in making adequate progress towards the achievement of SDGs is the failure to implement the policies and products developed based on evidence-informed research. IR, especially when mainstreamed, has the potential to address these problems. Agencies like ICMR/DHR are in a distinctive position to set best practices for mobilizing essential workforce, money and infrastructural and resources for this purpose and in the process generate evidence that can inform policy and drive action towards achieving health-related SDGs by 2030.

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