Wellcome Trust Project Report

Scoping Work on Research Management in LMICs

India

31 January 2017
Executive Summary

1. We recommend developing a research management fellowship programme for *Professionalising Research and Innovation Management in India* (PRIMI), which focuses on enhancing the personal skillsets of both academic colleagues and non-academic specialists, developing peer support networks, and creating professional communities of practice. 15-20 institutions will participate, incorporating 75-140 Research Management Fellowships.

2. The *business* of doing research is cumbersome and time-consuming and the quality and impact of Indian research will be improved with more consistent and widespread research management support.

3. There is a widespread lack of understanding of what research management entails. Individuals, institutions and funders must agree and promote a collective definition of research management that is broader than financial grant management.

4. Research management comprises many components, all of which support effective financial management and enhance and sustain research. Colleagues in India should prioritise skills development in the functional areas of Finding Funding, Developing Proposals, Financial Management and Research Uptake & Innovation, alongside a consideration of the Sustainability and Legal & Regulatory Requirements of each.

5. Until research management roles are sanctioned and paid for by Government there is limited potential for widespread professionalization of Indian research management. There is however a small existing talent pool for research management albeit a huge appetite for professional development and for the creation of formal peer networks and professional communities of practice.

6. Most Indian institutions do not have a formal and/or accessible research strategy and generally lack related policies and guidelines to inform research priorities. This makes managing local and institutional research portfolios difficult, more so because of the general lack of effective electronic research information management systems, to monitor and track individual projects.

7. PRIMI will help to position research management at the very heart of the research support system and will undoubtedly contribute to delivery of the Wellcome Trust’s wider strategic priority of *Strengthening Research Systems in Africa and Asia*. 
Research Management in India

Unlike Sub Saharan Africa, the research landscape in India is far less frenzied and relatively uncluttered, not least because the policy and funding environment is reasonably straightforward. And, unlike in African countries, there is no heavy reliance on external funding to support research and consequently donor activity and influence is limited, as are the opportunities for promoting the development of research management. That said, the Indian research environment is equally underpinned by administrative processes and investigators face much of the same administrative burden as their African counterparts, including proposal development, financial management, reporting, procurement, ethics and governance, and audit and compliance. The business of doing research is still cumbersome and time consuming and so there is legitimate scope for investing in specialist expertise and strengthening research support, focussing on individual development and thus enhancing research management capability and capacity in India.

The funding environment in India differs significantly to Africa in that research institutions secure most of their income from the Indian Government, primarily via the Ministries of Science and Technology and of Human Resource Development. This includes funding for research and development, as well as monies for estates management, utilities and salary support for all administrative positions. There seems to be adequate Government money for research, and success rates for grant funding are high, meaning that faculty have less motivation to seek support from international sources. Good research management is nonetheless required and whilst substantial research income is guaranteed, managing both core grant and competitive funding requires specialist skills in developing proposals, financial management and research uptake and innovation.

Understanding and Promotion of Research Management
Whereas in Africa there is a general lack of understanding of research management, in India colleagues recognise the important role that research managers can play as partners in the production of excellent science. Despite colleagues’ enthusiasm however, there is still significant emphasis on research management equating to grant management and little consideration is given to the wider opportunities afforded to the Indian research environment through provision of a research management profession that includes support for example for developing proposals, communicating research, improving procurement, increasing commercialisation, and cultivating collaborations. Indeed, some colleagues have expressed concern that certain faculty will need to be persuaded of the value of professional research management. Faculty who have done well in the Indian system and reached PI status have done so because they are good at administration as well as the science, i.e. identifying funding, writing grant proposals, managing their project, procuring equipment, writing reports, etc. As PIs they expect to take lead responsibility for this range of activity and would need to be persuaded of the value of letting this go. Agreeing and promoting a shared understanding of the profession amongst individuals, institutions and funders is therefore critical to establishing sector-wide research management. This includes demonstrating the value of professional research support to all relevant stakeholders, including PIs and their research teams, institution senior management teams, and funding bodies.

Career Development
There is general agreement amongst faculty and administrative staff that research management roles should be sanctioned by Government and paid for as part of institutions’ core grant (see above). There is however no obvious Government lobbying mechanism in India and consequently discussions about developing formal research management quickly flounder. Some institutions such as the Translational Health Sciences and Technology Institute (THSTI) have circumnavigated this by employing their research managers on core-funded consultancy contracts with the job title “Professional Expert”, which is an allowable role under Government guidelines. These consultancy roles are however offered only as renewable one-year contracts, which offer little job security and are therefore difficult to recruit. Other institutions such as the Indian Institute of Science Education and Research (IISER) and the National Centre for Biological Sciences (NCBS) employ their research managers using private funding, i.e. philanthropic or industrial research income, but again this means they can only recruit staff on short-term contracts, which can result in high turnover of staff and the loss of specialist expertise and knowledge.
Salary scales and employment terms are also an issue as these are set at Government level and are applied rigidly, both in terms of remuneration and level of responsibility. This creates an issue as highly qualified staff, often with PhDs, are often not paid at levels commensurate with other potential career roles, i.e. in the corporate sector, making it difficult to recruit and retain appropriate staff. Similarly, apart from the Grants Managers at the Wellcome Trust/DBT India Alliance and colleagues working at the IISER, the THSTI and the NCBS, there is no talent pool of existing trained research managers and no shared understanding of the knowledge, skills and experience required to undertake specific research management roles across the project lifecycle. Where singular research managers are employed they are sometimes not given the professional recognition and level of responsibility required, for example routinely having to obtain sign-off for their administrative and management decisions from faculty.

As in Africa, successful and sustainable research management in India requires significant culture change, sustained through high-level policy dialogue with Government. That is a significant undertaking that requires a coordinated approach from both funders and institutions, and should be recognised as necessary but long-term objectives. In the short-term, there is nonetheless an influential and practical role that funders can play in encouraging proficient research management in India, which underpins the dialogue at the national level, i.e. provision of a formal research management development programme. As in Africa, there is appetite amongst administrative staff and faculty for professional development and for the creation of formal peer networks and professional communities of practice and, as in Africa, capitalising on this enthusiasm and commitment will be one of the major keys to strengthening research systems in India. The development of individual specialist expertise is foremost in ensuring wider, long-term sector capacity for sustainable research. Organisations such as the NCBS and the IISER are the forerunners in developing the profession in India but with funder involvement, there is scope for laying the groundwork and initiating grassroots-led, sector-wide culture change.

**Research Management Information Systems**

In terms of management information systems, as in Africa, we found little evidence to suggest their widespread use. The NCBS does have an internally-built financial management system, as does the National Institute of Mental Health Neurosciences, which has designed its software specifically to comply with US financial accounting standards. Beyond these examples, institutions are not routinely utilising systems to track project management and progress. Irrespective of funding sources, the effective management of research data (financial and non-financial information on inputs, outputs and outcomes) is crucial if institutions and their faculty are to capitalise on and sustain their successful research, particularly if institutions are to meet the objectives of the Government’s various national objectives for research, development and innovation.
Definition: Research Management

Developing and sustaining an institutional research portfolio is not straightforward and the landscape in which research grants and contracts are secured is competitive and global. Researchers are no longer able to manage all aspects of research programmes or funding, nor is it the best use of their skills or time. They need expert support. Organisations that are successful in securing funding must fulfil a myriad of obligations and consequently the role of the research office and the responsibilities and expertise of research managers must match this breadth. In short, research management embraces anything that research offices can do to maximise the growth and impact of the research portfolio.

To benchmark research management in India we must agree our collective understanding of research management. Early discussions with colleagues from UK funding bodies¹ logically suggested an emphasis on and understanding of research management as equating to good grant management. As a profession, however research management comprises many core components, all of which exist to support effective financial management but also to enhance and sustain the research endeavour. Research management encompasses the wide-ranging administrative functions that act as enablers of research: We recommend a focus on:

1. Finding Funding;
2. Developing Proposals;
3. Financial Management; and
4. Research Uptake and Innovation.

These are the principal areas of research management which extend across the research project lifecycle. Focusing on these four priority areas of knowledge and expertise will result in individuals and institutions automatically addressing research Sustainability and Legal and Regulatory Requirements, which encompass the cross-cutting areas of activity that are integral to each of the four priority areas.

### FINDING FUNDING

- Horizon scanning for funding opportunities
  - Maintaining expert knowledge about national and international funder priorities and calls
  - Maintaining specialist knowledge about institutional priorities, researcher expertise and their career stage
  - Disseminating information to researchers in an efficient and timely manner

### DEVELOPING PROPOSALS

- Understanding funder terms and conditions
- Presenting the science as a cohesive, fundable grant proposal
- Planning for research execution, impact and uptake
- Pre-award financial management (developing a project plan, costing, pricing and submitting funding proposals)
- Research development and facilitation
  - Helping to build new collaborations and communities
  - Understanding and supporting interdisciplinary research, cross-sectoral partnerships, and industry engagement

### FINANCIAL MANAGEMENT

- Drafting, negotiating and accepting contracts
- Post-award project finance
- Employing staff on research contracts
- Reporting to funders
- Supporting audit, compliance and risk management
- Making statutory returns

### RESEARCH UPTAKE AND INNOVATION

- Collating data, measuring and articulating research impact (uptake)
- Knowledge exchange and business development
  - Commercialisation, social enterprise and new business support
  - Intellectual Property
- Consultancy
- Technology transfer
- Supporting researcher CPD
  - Enterprise skills and entrepreneurship
- Public engagement
  - Marketing and science communications

### SUSTAINABILITY

- Developing research strategy and policy
  - Institutional, Regional and/or International
- Training and capacity building
  - Postgraduate development
  - Supporting fellowships
  - Doctoral training
  - Administrator and manager training
- Institutional research portfolio management
- Management information systems and KPIs
- Networking and relationship management
  - Collaborators, funders, government, industry, competitors, professional RMAs, etc
- Organising, structuring and managing a research support service
- Alternate sources of research funding
  - Fundraising
  - Philanthropic giving

### LEGAL AND REGULATORY REQUIREMENTS

- Developing and/or contributing to research policy and strategy
  - Open Access
  - Data management
- Supporting research integrity and monitoring compliance
  - Governance, ethics, good practice, misconduct, animal welfare, clinical trials, etc
Recommendations

1. Clarity is required on the collective understanding of “research management”. A variety of interpretations pervade the sector, albeit all equating primarily to good grant management but for any long-term development of research management to succeed, we recommend that the Wellcome Trust works with its partners, institutions, and individuals to consider and collectively agree the definition, which must then be widely promoted across the Indian research sector.

2. Recognising that until the Indian Government amends its definition of “sanctioned” positions to include research managers and administrators, a holistic development programme that targets widespread sector change is unlikely to be sustainable in the long-term. We therefore recommend developing an Indian research management fellowship programme which focuses on enhancing the personal skillsets of both academic colleagues and non-academic specialists, developing peer support networks, and creating professional communities of practice. A programme Concept Note is attached as Annex A.

3. We recommend that the Wellcome Trust develops an implementation plan for strengthening research management. We also recommend that concurrently the Wellcome Trust engages with potential programme partners, stewarding relationships with a view to securing financial commitments for a collaborative initiative with a target start date of Q4 2016-17, i.e. September 2017.

Our comprehensive report on our scoping work on research management in Sub Saharan Africa and India is available on request.

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CONCEPT NOTE

PRIMI: a fellowship programme for Professionalising Research and Innovation Management in India (2018 – 2022)

INTRODUCTION
Led by the India Alliance and working with colleagues from 15-20 priority institutions across India, the Professionalising Research and Innovation Management in India (PRIMI) programme will be designed to strengthen both academic and non-academic skills and expertise in research management, and will be used as a vehicle for raising awareness and promoting the value of specialist research support. Each participating institution will nominate 5-7 individuals to join PIRM as cohorts of Research Management Fellows, working together through the programme and as a natural peer support network.

STRUCTURE
1. Institutional Professional Standards
Using the Institutional Standards of the PRIMI Capacity Matrix as the baseline indicator, we appraise and establish institutions’ existing capacity and capabilities for delivering professional research support. That baseline assessment informs the development of an institution action plan, which in turn informs all activities, outputs, and required resources to foster the right conditions for strengthening institutional research management capacity. Throughout the programme, using the same benchmarking technique, we return annually to measure and report progress against the institution’s action plan. Critically, providing we identify and use the appropriate KPIs, we can quickly create a record of impact. Key to success however is senior management buy-in and accountability. To that end, institutions should only participate if the senior management team: a) understands the value of the endeavour; b) agrees to participate as an institution, rather than as separate faculty, colleges or departments; c) agrees to commit some internal resources to supporting PRIMI; and d) agrees to be held accountable for their institution’s progress. Part of PRIMI will include support for and awareness raising amongst senior management, such as training on strategy and policy development, and study tours to partner institutions in the north.

2. Individual Professional Standards
75 to 140 individuals will benefit as Research Management Fellows, enhancing their personal skillsets and developing their peer support networks. The Fellowships will also be used to create professional communities of practice, and to define career pathways of non-academic specialists. Using the individual elements of the PRIMI Capacity Matrix as a baseline indicator, we will work with participants to establish their personal aptitude and development needs, and to create a personal development plan. Where applicable, this plan will be cross-referenced with their institution’s strategic plans, ensuring their institution provides a supportive environment for individual development, whilst the individual works to support institutional objectives.

The Fellowship curriculum will be delivered through a range of activities:

- Individual and group exchange visits with host institutions in the USA, Canada, UK, Europe and Australia;
- Group study tours to the USA, Canada, UK, Europe, and Australia;
- Formal classroom-based training and provision of online-learning;
- 1-2-1 support from a national or international professional mentor;
- An annual conference of RM Fellows, regular networking events and provision of online forums; and
- The opportunity for formal professional recognition via ARMS’ accreditation programme.
3. **Online portal of shared resources**

Provision of an open access online repository of shared resources will serve as a means for individuals and institutions to share their good and best practice in research management. It will also provide a portal for funders and/or project partners to share their best practice guidance. Resources might include links to technical information or products, copies of papers on current issues, practical “how-to” guides, policy summaries or statements, template forms or documents, or case studies on success (and failures) in developing professional research support. Key to the success of the portal is that it is open access: whilst participant institutions and their RM Fellows benefit from dedicated programme activity, this portal will act as shop window for PRIMI, generating wider interest, contributing much-needed learning material to the professions’ collective knowledge and hopefully growing the community of practice.

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