

## Impact case study (REF3b)

<b>Institution: University of East London</b>
<b>Unit of Assessment: 3</b>
<b>Title of case study: Improving health access and equity in India through health financing reform</b>
<p><b>1. Summary of the impact</b></p> <p>Empirical evidence generated by UEL research has directly influenced the reform of health financing in two Indian states with total populations of 154 million through changes to provider behaviour, the organisation and use of funds, and treatment verification processes and package rates. The impacts of this work have been commended by the UK Department for International Development (DFID) and the World Bank, and attracted interest from states with similar healthcare schemes. More widely, it has helped policymakers in India and the UK recognise the importance of including high quality comprehensive primary care in India's strategic planning for universal health care, and the benefits to the UK in prioritising primary care collaboration with India.</p>
<p><b>2. Underpinning research</b></p> <p>Poor healthcare access and crippling out-of-pocket expenditure are among the biggest challenges to efforts to improve health and reduce health inequalities in India, where 75% of the financial burden of healthcare is currently met by individual households. Pioneering research by Mala Rao (Professor of International Health at UEL since April 2011) has informed the reconfiguration of health financing in the states of Andhra Pradesh (AP) and Madhya Pradesh (MP). This work has its roots in a rapid assessment led by Rao in 2008-10 of the Government of Andhra Pradesh's (GoAP) Rajiv Aarogyasri Community Health Insurance (RACHI) scheme to inform health financing reform for the 'below poverty line' (BPL) population. This was conducted whilst Rao was Director of the Indian Institute of Public Health. Since joining UEL in 2011, she has focused on scaling up this work, starting with an evaluation of the Government of Madhya Pradesh's (GoMP) State Illness Assistance Fund (SIAF) scheme conducted between March and July 2011 and funded by DFID [1]. This study explored the extent to which the SIAF: i) mitigated the burden of health spending by poor households; ii) adopted a cost-effective approach to providing quality care; and iii) addressed the most important (perceived) health needs of BPL families. It assessed the relative efficacy of various methods of implementation in realizing the scheme's objectives, and identified requisite architectural and systemic corrections. Rao continued to provide technical advice on the implementation of her recommendations until March 2013.</p> <p>The study combined an evidence synthesis of health financing schemes with secondary analysis of SIAF data and consultations with leading Government policy-makers; members of the Madhya Pradesh Technical Assistance Team (MP TAST), which is engaged in DFID health sector reform programmes; senior staff of public, private and trust sector health delivery organisations; and district-level health officials. This was supplemented by focus group discussions with members of local communities, local government representatives and other beneficiaries. A questionnaire survey of beneficiaries and carers was undertaken to understand their experience of accessing and utilizing the scheme. The assessment revealed: i) that the scheme was highly underutilised (0.5% of the BPL population) and inequitable (lower utilisation rates in the more deprived districts), despite steadily rising year-on-year expenditure; ii) complex and burdensome pathways to accessing treatment; iii) disparities between conditions covered by the scheme and the epidemiological evidence of need; and iv) poor data management systems.</p> <p>The second key strand of the research was a comprehensive impact evaluation of the GoAP RACHI scheme conducted in 2011-13 [2]. This resulted from a recommendation to GoAP and the Aarogyasri Health Care Trust Board from the Planning Commission of India that Rao's earlier rapid assessment be followed up with an in-depth evaluation. Rao was Principal Investigator in the study, which was conducted in partnership with the Indian School of Business, Administrative Staff College of India and ACCESS Health International. In that role, she led the development of the proposal and funding applications, implemented the study and supervised the analysis and dissemination of results. The evaluation focused particularly on the scheme's potential role in universalising access to health care. It assessed its success to date in achieving its aims of mitigating the burden of out of pocket healthcare expenditure and ensuring equitable access to health care for serious illness across the BPL population. The evaluation used the National Sample Survey Organization (NSSO) 60<sup>th</sup> round survey 2004 as the baseline; the state of Maharashtra was</p>

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used as the control on the basis that it is comparable with AP in development and demographics and had introduced another health financing scheme (RSBY) with a lower level of benefits. It involved a survey of 18,000 households in AP and Maharashtra (2012), replicating the NSSO methodology. A robust statistical approach, comparing the difference in the differences in the two states between 2004 and 2012, was then used; qualitative evidence was also collected from a selection of households in AP to understand their perceptions of the RACHI scheme.

This was the first quasi-experimental evaluation of a health-financing programme in India, and complex health economics data modelling and analysis are ongoing. However, the key preliminary finding was that the RACHI scheme in AP was more effective than the RSBY in Maharashtra in reducing hospital inpatient care-related expenditure and large borrowings to pay for health care. The RACHI scheme has also improved access to healthcare among the poor. However, to achieve equity of access to that care and to minimize out of pocket expenditure, schemes focusing on hospital care need to be built on a strong platform of primary (and family) care. This will reduce health care costs by preventing illness and promoting the early detection and management of potentially life threatening illnesses, and improve health literacy, helping people better understand their health care entitlements and navigate complex care pathways [2].

The preliminary findings from the assessments of the MP SIAF [1] and GoMP RACHI schemes [2] both, therefore, supported the promotion of stronger primary care to reduce the financial and non-financial barriers to health care faced by the poor. This prompted recognition of the importance of primary care among policy leaders in the Indian and UK Governments; as a result, Rao was asked to lead the writing of a Primary Care White Paper [3]. That Paper (co-authored with Prof David Mant) highlights the importance of primary care in the context of India's future health strategy and articulates the likely benefits and practicalities of a UK-India primary care development partnership to support improved governance, education and professional development, and the development of affordable technologies, public-private partnerships, and health care innovation.

### 3. References to the research

1. **Rao M**, L Nanda, S Kanneganti, R Gopinath, S Kandamuthan, S Bergkvist, N Minhas, C Morris. *The State Illness Assistance Fund of Madhya Pradesh: a rapid review. A report for the Madhya Pradesh Technical Assistance Team (MPTAST) on behalf of the Government of Madhya Pradesh*; July 2011. Funded by DFID (£122,757 + \$51,254 + 4,476,778 INR). Available on request
2. **Rao M**. *An efficient model for improved access to quality healthcare services and reduced catastrophic healthcare expenditure? An evaluation of the Rajiv Aarogyasri Health Insurance Scheme*. IDRC Final Technical Report; 30 June 2013. Funded by Rockefeller Foundation (\$119,000), DFID (\$187,980), IDRC (327,700 CAD), Wellcome Trust (\$178,777 + £65,313). Available on request.
3. Rao M and Mant, D. *Strengthening primary healthcare in India: white paper on opportunities for partnership*. BMJ May 2012; 344. <http://doi.org/p3s> Funded by DFID (£41,500)

### 4. Details of the impact

The development and maintenance of Rao's close working partnership with public health authorities both in the UK and in India and emphasis on needs-led evidence generation, has facilitated the rapid development and delivery of significant impacts on health service provision and policy in AP and MP, and on health policy and collaboration between India and the UK.

**Impacts on service commissioning and delivery in Madhya Pradesh.** 54% of the population of MP, which is one of India's largest states, live below the poverty line. Scheduled Castes and Tribes, recognised as among the most deprived populations in India, make up 35% of its population. Consequently, MP has very high disease and mortality rates and is the only state identified in the India State Hunger Index 2008 as having an "extremely alarming" hunger problem.

Against this backdrop, Rao's evaluation of the SIAF scheme in MP [1] has had very significant impacts. These have particularly included contributions to the development in 2011-2013 of a more efficient financial support scheme for care of the seriously ill in MP. More specifically, the recommendations made in [1] to improve the efficiency of the state's financial support scheme resulted in the constitution in August 2011 of a State Steering Group in MP, tasked with overseeing the restructuring of the SIAF [a]. That Group has since made further recommendations based on

[1] which were subsequently promulgated in Government Orders. These included significant changes between October 2011 and October 2012 to the management of the fund (including a boost to its overall value); strengthening the leadership and management in the unit responsible for overseeing the fund delivery; renegotiating treatment package rates with healthcare providers; devolving powers to authorise funds at district level; and better verification of patient treatments funded by the scheme [b]. Other reforms currently underway include the introduction of better accreditation procedures for providers and reduction in the bureaucracy around securing funds. The development and implementation of this more efficient health financing system is particularly beneficial to MP's many poor citizens. The World Bank has acknowledged 'substantial progress' in the management of the SIAF and said it was 'heartened' to see that other reform options were also being considered in line with recommendations made in [1]. [c].

Recent feedback suggests that these changes are already having a real effect on the number of recipients of treatment in MP. Annual total approvals by the Directorate of Health Services were previously typically in the order of 2,000 treatments. In 2012-2013, however, 7,267 cases were approved, allowing treatment to be offered for serious life threatening illness [d]. Furthermore, a much greater percentage of those treatments are actually being carried out: verification of treatments totalled only 20 or 30 per year in 2011, but 90% of treatments authorised in 2013 have been verified. Patient feedback forms, introduced in 2013, are already achieving a respectable – and growing – response rate of 50% [e]. That feedback has, moreover, been linked to the Management Information System (MIS) to ensure that patient experience informs health care provider monitoring and evaluation and feeds into decisions about the selection or de-selection of those commissioned to provide care funded by this scheme. In a move marking a significant step towards the eventual development of a single, comprehensive health service system, MIS now integrates the myriad schemes providing entitlements for free medicines, tertiary level care (the SIAF), and so on [f]. At a meeting in February 2012 to discuss the 2012 annual review of progress in the DFID-supported reform of MP's health sector the outputs, the government of MP highlighted these health financing reforms as among the most important achievements of that programme [g]. The significance of the impacts of Rao's work was acknowledged again at a Community of Evaluators conclave in Kathmandu in February 2013, where a DFID senior manager showcased the rapid and direct changes in policy and service delivery resulting from her evaluations [d].

**Impacts on health service delivery beyond MP.** Rao's evaluation of the RACHI scheme in AP [2] has also influenced service delivery in Maharashtra, where it informed the introduction in July 2012 of a RACHI-like scheme called the Rajiv Gandhi Jeevandayee Arogya Yojana. The use of Maharashtra as the control state in Rao's evaluation has given those developing this scheme a better idea of the benefits Maharashtra can expect. More widely still, the results of Rao's evaluations of existing health care services in MP and, in particular, in AP have encouraged a greater focus on and interest among policy leaders in both the UK and India in developing comprehensive primary care as a basis for 'whole system' health delivery schemes addressing the full spectrum of community health needs. These changes are now being considered beyond AP and MP, including in Kerala, where the growth of the hospital sector has outpaced improvements in primary care. In July 2012 Rao was invited by the Government of Kerala to help develop a proposal (with support from the Government of India and DFID) for a new model of primary care across three pilot primary health centres in Trivandrum, and to evaluate its impacts on health outcomes, community satisfaction and out of pocket expenditure on health care. That proposal recommended the adaptation of UK primary care best practice to the Kerala context to provide, for the first time, a comprehensive health service capable of providing appropriate preventive, promotive, curative and rehabilitative care for communicable and non-communicable disease.

Rao's recommendations were used as the basis for the development of plans for a pilot project that will initially benefit 80,000 people resident in the three catchment areas; if successful, it will be extended across the state and replicated across the country. The anticipated outputs include reduced out-of-pocket expenses for outpatient care, and better and more systematic care for people with a wide range of medical conditions. In May 2013, the Government of India approved a grant of INR 2 crores (~£622k), for the Government of Kerala to implement the proposal in 2013-2014. The influence of Rao's work on this development is corroborated in a concept note sent to Rao by the Kerala Health Secretary in Feb 2012, with the purpose of exploring UK support to strengthen primary care in the state; it is likewise evident in recommendations made by Sujatha

Rao (recently retired Health Secretary, Government of India) in the report of a primary care workshop held in Delhi, July 2013, that the development of new primary care systems would benefit from involving people like Rao [h].

**Influencing public policy via contributions to policy debate in both the UK and India.** Rao's work has also led to recognition among national policymakers in both India and the UK of the central importance of primary care to efficient and effective health delivery systems. This is demonstrated, for instance, by Rao's appointment by Mark Walport (Chair of the Health Workstream of the UK-India CEO Forum and then Director of the Wellcome Trust) as the Public Health academic expert leading the development of a White Paper exploring the benefits and practicalities of a primary care partnership between India and the UK [3]. That White Paper has reached a very wide audience of health practitioners when it was published (accompanied by an editorial co-authored by the Director General of Health Services, India) in the BMJ in May 2012 [3].

It has since evoked enormous interest, particularly via its use as the basis for a 2-day workshop in New Delhi in February 2012 to inform India's Twelfth Five Year Plan. Hosted jointly by the Wellcome Trust, Government of India Ministry of Health and Family Welfare and DFID, the workshop was chaired by the Health Secretary of the Government of India. Participants included some 50-60 Indian and UK leaders in health care, health policy and health research, among them members of the Planning Commission of India's High Level Expert Group (HLEG) and representatives of the taskforce on 'Universal Health Coverage' [i]. Workshop outputs were summarised in a note prepared by the Wellcome Trust, highlighting recommendations for the two countries to work together to strengthen human resources, technology and governance, and best practice in primary care. Along with Rao's ongoing dialogue with Dr Nachiket Mor of HLEG, these recommendations ensured the influence of Rao's work on the HLEG recommendation for – and subsequent inclusion of – the development of comprehensive primary care and taxation-based financing as a priority objective in India's Twelfth Five Year Plan (2012-2017) [j, k, l].

##### 5. Sources to corroborate the impact

*Copies of all evidence listed below are available on request*

[a] For constitution of the State Steering Group based on recommendations in [1]: SIAF Order No SIAF/2011/1130. Directorate of Health Services, Satpura Bhawan, Bhopal, 04 August 2011.

[b] Revisions of treatment packages and prices, hospitals and thresholds for payment are likewise detailed in SIAF orders (e.g. Nos. 2012-13/3035 and 2012/3201, Procedure Rates and Increase Threshold for Grants at District Level) and corroborated in emailed progress reports sent by MPTAST in March and April 2013. Email correspondence from the Senior Governance and Health Systems Advisor, MPTAST describes implementation of a 'beneficiary-centric' treatment scheme (order 2012/424) in line with recommendations made in [1]. See also Hindustan Times, Bhopal. 'Below Poverty Line treatment rates in private hospitals to decrease' (9.11.2011).

[c] World Bank feedback available on request.

[d] Feedback from MPTAST team leader 2011-2012 and email from DFID senior manager who presented [1] at a Community of Evaluators conclave (Feb 2013) confirm its impacts in MP.

[e] SIAF Order on patient feedback and better collection of treatment utilization certificates Dec 2012. See also MPTAST SIAF progress report received March 2013.

[f] The integration of previously separate systems within the MIS is described in the MPTAST SIAF progress report received Oct 2013

[g] Annual Review of Madhya Pradesh Health Sector Reform Programme (MPHSRP), Feb 2012, p. 34. A supporting statement supplied by the MPTAST team leader is also available on request.

[h] For influence of [1] and [2] in promoting comprehensive primary care in Kerala: concept note from the Health Secretary, Government of Kerala requesting Rao's support to develop Kerala's primary care strategy; and recommendation by Sujatha Rao that her technical advice be sought.

[i] Programme, list of invitees and meeting note for 'Strengthening Primary Healthcare in India: Opportunities for Partnership' workshop (23-24 Feb 2012), based on [3].

[j] Feedback from Sir Mark Walport demonstrates the impact of Rao's work on the prioritisation of primary care in India's health care strategy (2012-2017) and in the UK-India partnership for health.

[k] Correspondence with Dr Mor, responding to his request for advice on health financing options following the publication of [2].

[l] For the draft plans for health / health financing in the Twelfth Five Year Plan (2012–2017). Social Sectors, Vol. III. Sage 2013: <http://bit.ly/1bzbyjZ> pp. 1-46; see particularly box 20 on p. 12