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Research Article

How a Technical Agency Helped Scale Up a Community Health Worker Program: An Exploratory Study in Chhattisgarh State, India

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CONTENTS

Abstract—India's goal of universal health coverage underscores the need for scale in community action for health. Among the few successes in community programs is Chhattisgarh's Mitanin Program, designed and maintained at the scale of the entire state (covering almost 20 million). Evaluations of scaled-up interventions typically examine population health outcomes, placing less emphasis on *how* programs succeed or fail. To address this knowledge gap, we undertook a qualitative research study to explore the role of the State Health Resource Centre (SHRC), a state technical agency, in scaling up Chhattisgarh's Mitanin health worker program over a ten-year period commencing in 2002. We undertook observation, policy documentary review, in-depth interviews, and focus group discussions with policy/program developers, facilitators and trainers, community health workers, and representatives of civil society. Data analysis followed an inductive approach of qualitative data analysis and data were thematically organized in the form of folk theories including interlinked contexts, mechanisms, and outcomes reflecting the experience of the SHRC in scaling up community action for health in the state. The first folk theory links the enabling context of the formation of a new state with mechanisms of pluralistic and multistakeholder governance of the SHRC and avoidance of overt political patronage of the program, contributing to the sustainability of the program through multiple administrative and political transitions. The second folk theory elaborates how equity-focused mechanisms such as linking the program to locally important, intersectoral agendas for marginalized communities and attentiveness to career trajectories of female frontline workers created space for these workers to organize and demand livelihood rights against a broader context where the indigenous tribal minority and women are widely excluded from the social and political mainstream. These exploratory findings illustrate how the pluralistic governance structure of the SHRC, coupled with a set of unique contextual strategies, contributed to the longevity of the program and professional growth and opportunities for female community health workers, with lessons for other low- and middle-income country decision makers.

Keywords: community health workers, health policy and systems research, India, scaling up, universal health coverage

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INTRODUCTION

Over the past decade, momentum has been building for a commitment to universal health coverage in India, with specific consideration of the role of community action in health across the country. India boasts a strong history of community action in health; that is, the involvement of community organizations in health advocacy, promotion, and services delivery.[1-3] For the most part, however, these programs have been limited or circumscribed in scale. India's nationwide goal of universal health coverage and, in particular, its universalist character underscore the need for achieving scale in community action. The state of Chhattisgarh has been identified by expert groups as having successfully catalyzed community action for health at scale.[1] Reaching scale with community action can bridge gaps in government provision of services ensuring universal access to health.[4] It can also create a popular platform for voice, representation, and advocacy for rights.[5]

The World Health Organization[6] defines scaling up as "deliberate efforts to increase the impact of successfully tested health innovations so as to benefit more people and to foster policy and program development on a lasting basis." Recent scholarship suggests that scale is sensitive to local-level interactions, that a heterogeneous and nonlinear complex of factors influences the health system,[7-9] and that unintended, "emergent" behavior may arise from these conditions.[10,11] As a result, community action at scale is likely to be a highly contingent, customized process in each setting.

Moreover, literature on scale up of community action in health in various forms suggests that initiatives for community action in health are widely characterized by trade-offs between scale and other attributes, such as quality of programming, fidelity to objectives across varying geographies and contexts, and sustainability over time.[7,12,13] Our review of the literature suggests that scaling up must be an explicit goal of such efforts from the outset; that is, from the "pilot" or initial stages.[12-17] Multiple studies also point to the need for institutional development, the creation of support structures and processes for stakeholders involved,[7,13,18,19] as well as structures for capacity building and training.[18,20-23]

McCoy and colleagues,[24] in their systematic review of health facility committees (HFCs) in low- and middle-income countries, conclude that "given the different potential roles/functions of HFCs and the complex and multiple set of factors influencing their functioning, there is no 'one size fits all' approach to community participation in health (CPH) via HFCs, nor to the evaluation of HFCs." Rifkin has also highlighted the contingent nature of community action for health, noting the complex interplay of contexts and processes that may be easily overlooked in standard research and evaluation designs.[20]

Zakus and Lysack have emphasized local health program initiators, who play a critical role in stewarding community processes.[25] The literature suggests that community action at scale often depends heavily on such external catalysts.[26,27] Our study focuses on the role of a technical agency, the State Health Resource Center (SHRC) Chhattisgarh, in scaling up one form of community action—a community health worker program—in the state.[1] The aim of our study was to explore the relationships between selected contexts, mechanisms, and outcomes associated with the SHRC's role in establishing a state-wide community health worker network over a decade-long period commencing in 2002. As such, our analysis is focused at the "meso level"[28]; that is, pertaining to the functioning of organizations and interventions, with significance for similar initiatives in other low- and middle-income country settings.

Chhattisgarh's State Health Resource Center

Upon the formation of the new state of Chhattisgarh in 2000, the State Department of Health and Family Welfare and health-related civil society organizations facilitated the establishment of an "additional technical agency," the SHRC. The agency was created to assist the department in the design, operationalization, and implementation of a health reform agenda. The director and staff of SHRC were selected through an independent process. The secretariat of SHRC began with a skeleton staff of five (including one coordinator, three program staff, and one accountant) in 2002, increasing in the subsequent decade to 25 (including one Director, 11 program and research staff, and 13 administrative, financial, support, and secretarial staff).[29]

The SHRC governing body was and continues to be chaired by a civil society representative; most of its members are from civil society organizations, with additional representation from the health department. The SHRC does not operate under the direct control of the department but under a Memorandum of Understanding with the State Health Society, which confers on it a relatively high degree of autonomy. SHRC was supported initially through external funding from the European Commission routed via the Indian Government to the State Health Society. It has subsequently received funding largely from the National Rural Health Mission (NRHM), although certain aspects of the program have dedicated state health budget allocations. In addition, SHRC receives support from some non-health government departments and nongovernment funding

agencies. As per its Memorandum of Understanding, SHRC acts as the link between the government of Chhattisgarh and relevant individuals and institutions to whom specific activities may be outsourced.[29-31]

At the top of the SHRC's reform agenda from its incipience was the delivery of community health services through a program of selection, training, and support to locally placed female community health workers or Mitanins. The Mitanin program eventually came to include over 60,000 female community health workers and emerged as a key precursor to, and major influence upon, the government's community health worker program of accredited social health activists. This program is structured as a pyramid, with personnel at village, block, district, and state levels who provide routine support, training, and monitoring for community health activities (see Figure 1).

Evaluations undertaken separately in 2005[32] and 2011[33] suggest that the SHRC undertook to and succeeded in operationalizing a range of community-led initiatives in health at scale, most notably the Mitanin Community Health Worker Program, and that this program was sustained at scale. These evaluations, literature review, consultations, and a scoping visit to Chhattisgarh led us to the understanding that within particular contexts, SHRC introduced and enacted a range of mechanisms that were catalytic or directly instrumental in enabling scaling up of the Mitanin program. We focused on the flagship Mitanin program, because this has been the base for other forms of community action in health, including village health and sanitation committees, the Nutrition and Health Fellows Program at the village level, and engagement with nongovernmental organizations (NGOs) working at the grassroots level on social determinants of health.

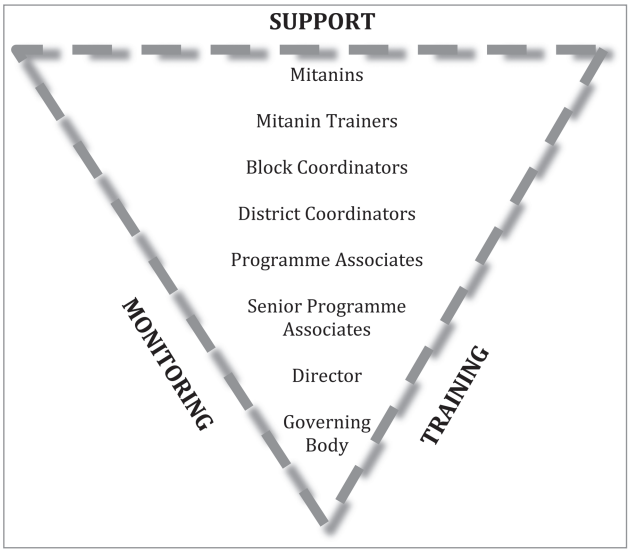

FIGURE 1. Mitanin Program Structure

METHODS

Drawing from the realist approach,[30] we undertook exploratory research focused on accessing the experiential knowledge of a range of stakeholders, to elaborate how mechanisms (strategies implemented by SHRC leadership) operating in specific contexts led to outcomes related to scaling up and sustainability. Under the realist approach, it is acknowledged that the researcher's role is to marshal knowledge that is extant but fragmented or otherwise unevenly distributed across stakeholders in a program environment—we followed this principle, even though we did not include all of the steps that constitute a full-blown realist evaluation. We sought to identify "folk theories," (which represents an exploratory phase of a realist evaluation)[34] based on experiential knowledge of stakeholders (Mitanin community health workers, SHRC employees and decision makers, government, and Mitanin support system staff), developed in the course of their involvement with the program.

Qualitative data collection methods were employed, including policy document review, in-depth interviews (IDIs), and focus group discussions (FGDs) with a variety of policy actors and stakeholders (see Table 1) between January and May of 2012. Principles of maximum variability[35] were used to select IDI participants, who included state-level policy elites, district-level policy implementers, and sub-district/village-level policy implementers on the frontline. We sampled across these categories to be able to talk about program genesis and evolution, while also understanding its everyday operation at the scale of state (where policy is formulated), district (where it is interpreted for implementation), and sub-district (where further interpretation/reinterpretation and negotiation take place as implementation confronts ground realities). Participants had between a few months and a decade-long engagement with the program; again, a feature of the study design aimed at capturing the gamut of views and experiences of the SHRC and Mitanin program. Further, three different districts of Chhattisgarh were chosen to reflect the diversity within the state—we sought to represent districts with both larger and relatively smaller tribal populations, more or less urbanization, and diversity in terms of mass mobilization and civil society activism related to health and rights. These criteria were determined based on review of demographic data (tribal population, level of urbanization) and information from a member of the research team with close to a decade of experience in Chhattisgarh.

A team of three field researchers conducted IDIs and FGDs. Anonymity was ensured throughout the data collection process: participants were assigned codes and only one document, used for scheduling, contained their identifying information. In all cases, participants were asked how they

	Policy Document Review	Observation	In-Depth Interviews	Focus Group Discussions		
			State level/policy elites	District level/policy coordinator	Sub-district level/policy frontline	
Selection			Purposeful, iterative	Maximum variation	Purposeful/typical case	
Parameters for selection	Documents that reflected policy decisions or otherwise shed light on SHRC's role in community action processes	Community action activities and events or SHRC-led events related to community action that were ongoing during the data collection period were attended	People involved with program initiation or visioning of community action or leadership and upper level management decision making related to community health processes	People involved with management of SHRC's community action programs, management, implementation, or oversight of health for communities	People involved with local community action on health, community-level health service delivery, Panchayati Raj institutions, village health and sanitation committees, self-help groups	Typical attendees of routine community action events/ gatherings
Example	Memorandum of understanding establishing SHRC	Mitanin training	Executive director, member of state advisory committee	Block medical officer, district coordinator	Mitanins, village head, auxiliary nurse/midwife	Village Health and Sanitation Committee meeting attendees, including Mitanins, villagers, and village head
Sample	~30	~5	20	30 (10 per district)	30 (10 per district)	Three (one per district)

TABLE 1. Summary of Methods

wanted to be identified and this was noted. All data were kept confidential and stored in a password-protected file. Verbal informed consent was also sought from all participants and when interviews were recorded, individual permission was separately sought. Ethics approval was obtained from the Public Health Foundation of India's Institutional Review Board in December 2011.

One member of the research group that conducted this study had prior research and programmatic experience in affiliation with SHRC; apart from the introductory consultation, this individual was completely uninvolved in data collection and analysis.

Data analysis was undertaken by members of the research team, attempting to characterize folk theories emerging from various stakeholders, drawing upon inductive generation of themes[36,37] that were organized as clusters of contexts, mechanisms, and outcomes, reflecting the realist taxonomy. Drawing from in vivo coding, a free list of emerging themes was developed under the domains of mechanisms, contexts, and outcomes. Based on this free list, hand coding of interview summaries was carried out by three members of the research team. Following this, a series of discussions was held and additional themes were added to the codebook. From the larger grouping of themes, specific mechanism, context, and outcome themes were collated and grouped (i.e., codes with corresponding data were arranged). All data corresponding to these themes were perused again to develop code phrases for each theme. Finally, thematically organized interview data and material from other sources of data were synthesized to assemble the article.

In part to enable reflexivity throughout our data collection process, extensive field updates and records were maintained and routinely discussed. All data collection occurred in teams, and the research team actively discussed and reflected upon each interview conducted and each location visited. Another anchor for research quality was the notion of *fair dealing*, ensuring that a range of perspectives was represented in the research to avoid privileging a "sole truth" or single interpretation of findings.[38] Fair dealing featured in our selection process and in the process of our analysis, where we attempted to include a diversity of perspectives on each mechanism, context, and outcome. Thus, we actively sought, considered, compiled, analyzed, and present the views of Mitanins, Mitanin trainers, government officials, collaborators of SHRC, as well as present and former functionaries and leadership of the SHRC. Wherever there were discrepancies, they have been noted (e.g., in Mechanism A1, the functioning of plural governance is viewed differently by different stakeholders).

In addition, study quality was strengthened by cross-validation in the analysis phase. For one, interview summaries in most cases were written up by two researchers, on the basis of which findings reflected in both interpretations of the interview were considered. Analytic write-ups were shared with researchers who had and who had not done the interviews to triangulate interpretation. We subjected a report of initial findings and analysis to review by a subject expert without specific connection with the study setting.[39] We also subjected our findings to the scrutiny of one individual closely involved with the Mitanin program. This process of credibility checking sought to evaluate the compatibility of our findings with the experienced realities of those supplying the data itself, assessing the degree to which observations "ring true" to their subjective realities.[40,41] Suggestions made by both reviewers were considered by the research team, and appropriate adjustments were made to the findings and conclusions.

RESULTS

Our study revealed a number of reported contexts, mechanisms, and outcomes, configured to characterize the experience of the SHRC in scaling up community action for health in the state. Two configurations emerged prominently from among a range of relevant themes and are detailed below (see also Figure 2).

Folk Theory A: Pluralistic and multistakeholder governance of the SHRC and avoidance of overt political patronage of the program on the part of the SHRC leadership, contextualized by the formation of the new state of Chhattisgarh, enabled sustainability of the program through administrative and political transitions.

Context A—Formation of New State

The formation of the new state of Chhattisgarh in 2000 likely provided a favorable context for action on health system reform. Part of the impetus for the creation of the new state was that the districts that constituted the state were relatively poorly developed,[38,42] resulting from myriad historical factors. The formation of the state of Chhattisgarh, carved out from existing Madhya Pradesh, represented an opportunity to identify a development agenda focused on the social sector and services. As pointed out by a high-level bureaucrat in the new government: "There was a lot of energy [and recognition of] the need to do something ... and health was on the agenda." Further, there was appetite for innovations in

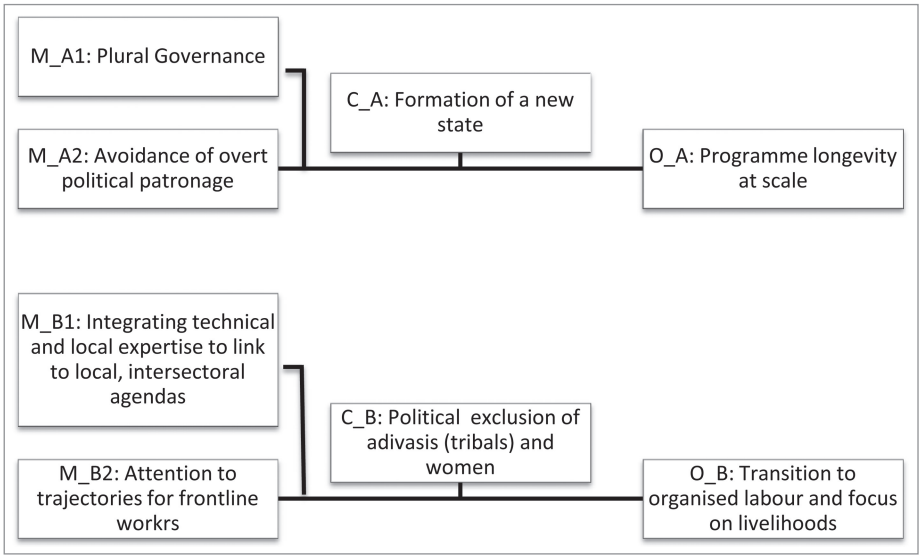

FIGURE 2. "Folk Theories" Characterizing State Health Resource Centre Chhattisgarh's Experience of Scaling up Community Action for Health

approaches to governance, such as the creation of hybrid institutions in the social sector. A former SHRC leader noted that because most of the leadership had gone to the state from which Chhattisgarh was formed, it was easy to justify the requirement for an institution like SHRC. As a government official pointed out, there was need for "an institutional framework. We felt it could not be solely government or solely civil society. That's how SHRC was born" (government official, male, interviewed 14 March 2012).

Mechanism A1—Plural Governance

Multiple constituencies, including the state bureaucracy, Indian and international NGOs, and an international aid agency were engaged in creating and supporting the SHRC and its programs, favoring versatility in the roles eventually played by the SHRC. This pluralism was manifest in different ways in the governance structure of SHRC. Notably, the chair of the SHRC's governing body was drawn from a civil society organization and thus not bound to the state apparatus. Further, successive Memoranda of Understanding (in 2002, 2005, and 2009) of the institution retain a provision to expand its partnerships with "contracted in" individuals or institutions on an ad hoc basis.[29-31,43] Finally, though SHRC's initial funding base was under the Sector Investment Program of the European Union, it thereafter received funding from multiple donors, including the NRHM, the state government, and private donors. The plural model and diffusion of interventions also frequently required negotiation and intermediation in accommodating views of various stakeholders, which was not always successful.[5] For instance, one respondent reported strong disagreements about the design of the Mitanin program and its linkage to the design of Chhattisgarh's health system and to devolution of power at the village level, points that were raised by members of the multistakeholder State Advisory Committee convened to advise the government. This committee, which sought to formalize civil society participation in the health reform process, eventually stopped meeting in its formal capacity and was no longer advising the state or SHRC in this formal capacity.[44]

Mechanism A2—Avoidance of Overt Patronage

According to many in the senior leadership of SHRC as well as its collaborators, keeping the program running at a large scale and over an extended period of time necessitated a balance between ensuring political support and avoidance of highly politicized endorsement, or patronage. Perhaps the most obvious example of SHRC's efforts to this end was reflected in the nonspecific naming of the program itself. On its commencement in 2002, it was named after a previous prime minister of the country, in keeping with the sensibilities of the political leadership of the state at the time. In 2003, with the advent of a new administration, the flagship program was generically renamed such that the identification of the program was no longer with an individual or a party. Since that time, the program has retained this neutral nomenclature, which, according to a participant who had collaborated with SHRC in its early

days, "gave it new form but allowed it to continue" (former SHRC collaborator, male, interviewed 31 January 2012). SHRC has engaged constructively with state authorities and ministries throughout the past decade, including a period when national and state governments were administered by rival political parties.

The strategy of avoidance of overt patronage was also reportedly served by sub-mechanisms—such as frugality and respectful exercise of dissent—that accorded moral high ground to program protagonists in their dealings with political actors. Partisan patronage or exploitation was avoided, as one SHRC program coordinator noted, through frugality, because "we take time, but not money … [so] there is no pressure from the government" (SHRC leader, male, interviewed 12 January 2012). The program spent no more than 2,900 Indian rupees per Mitanin in the first four years of the program;[33,40] respondents indicated that such frugality made the program less susceptible to graft. Reportedly, SHRC had "moral strength" of its own, to overcome interference and political co-optation. In the view of one former collaborator, SHRC's endurance was explained thus: "SHRC had political acumen, clarity on limitations, inscrutable integrity, ability to challenge—to disagree without being disagreeable—they became indispensable to the system" (former SHRC collaborator, male, interviewed 18 January 2012).

Outcome A—Program Longevity at Scale

A credible association was drawn by many respondents between the pluralistic and politically distanced character of the program and its longevity across political and administrative transitions. The Mitanin program commenced in late 2001 and, as observed by a former collaborator, since then "has survived four Directors [of Medical Services], two CMs and three elections" (former SHRC collaborator, male, interviewed 18 January 2012). By 2014, SHRC had, in fact, "survived" its fourth election. The program's longevity defied the expectations of the Mitanins themselves. One of them noted in our FGD: "Initially we never thought it will run for so long. We hardly expected it to survive for 1–2 years but this is its 10th year!" (Mitanin, female, group discussion 9 February 2012). An SHRC functionary in Raipur attributed this to the scale of the program: "The size gives it protection … [it is] not easy to dismantle because [it is] huge, old, and dispersed" (SHRC leader, male, interviewed 12 January 2012).

Folk Theory B: In a state with a large underprivileged indigenous minority and limited political space for women, policies such as linking the program to locally important, intersectoral agendas for marginalized communities and attentiveness to career trajectories of female frontline workers created space for these workers to organize and demand livelihood rights.

Context B—Political Exclusion of *Adivasis* and Women

Chhattisgarh is a richly forested, mineral-rich state peopled by large communities of indigenous peoples or *adivasis*, who have faced persistent political and economic disadvantage.[45] So even as the notion of a distinct Chhattisgarhi culture and identity was important to its citizens, various informants also pointed out the widespread disenfranchisement and limited participation of the indigenous Chhattisgarhi population in institution building, including in the senior ranks of the SHRC. A former senior SHRC functionary noted that, from its origins through to the present day, SHRC joins the ranks of other state actors that have experienced an inability to place Chhattisgarhi *adivasis* in leadership roles.[44] There also exists in Chhattisgarh a precedent of women rarely occupying positions of power, which is also reflected in the SHRC, as noted by the same participant. Though the enhanced status and respect for Mitanins was widely credited to the SHRC's progressive organizational culture, there was little representation of women in SHRC's upper echelons, despite the avowed efforts of the leadership to remedy this.

Mechanism B1—Integrating Technical and Social Expertise to Link to Local, Intersectoral Agendas

A key mechanism characterizing SHRC's stewardship of the program was an emphasis on both technical as well as social components. Technical aspects of the program described to us by a former SHRC leader included preventive and promotive public health, medical competencies, as well as health systems strengthening. On the other hand, social expertise, including the ability to move around, negotiate with different stakeholders, and assert oneself constructively with communities and officials alike, was also important, particularly given the aforementioned context of marginalization of specific social groups in the state.

As the program moved ahead, the team at SHRC sought to represent and recruit those with health experience and those having prior experience with mass mobilization and community action, independent of health. Various key figures in the initial upper management of the SHRC had experience in adult literacy mobilization in north India. Others who joined the program reported prior work in people's movements, including the literacy movement, the people's science movement, and other initiatives. For

example, a Swasthya Panchayat Fellow reported working as part of the water, forest, land movement (*jal, jangal, jameen*) in the late 1990s, later joining SHRC through his networks with another community activist who had by then joined the SHRC fray.

Many of the Mitanins and Mitanin trainers involved with the program had been in leadership roles as part of self-help groups or *panchayats* [village councils] in their villages, roles in which they continued even after becoming Mitanins and acquiring technical competencies in health. Another Mitanin trainer reported, "Now we can fight for our rights women never came out of their houses and after this programme started they got information and they became aware. So this programme became successful very fast" (frontline worker, female, interviewed 1 March 2012). In her view, the success of the program was attributed to a combination of the social capital created by women moving into public spaces in their capacities as Mitanins and Mitanin trainers and the technical capacities gleaned by them through their training as health workers.

SHRC leaders' linking of health with issues such as forest and indigenous people's rights also reflected attempts to counteract the political marginalization of socially vulnerable groups. Mitanins frequently operated beyond the strict remit of health; that is, in other linked sectors. In one district, NGOs involved with school maintenance included the involvement of Mitanins in the course of their work on the midday meal self-help scheme. In a northern *adivasi*-dominated district, Mitanin trainers described to us how they mobilized village women to protest the felling of trees. The work of Mitanins and those supporting them from SHRC, therefore, was variable, within and beyond the health sector, and contingent on local priorities.

Mechanism B2—Attention to Career Trajectories for Frontline Workers

Consciousness of broader contexts of political exclusion of women shaped the SHRC leadership's visible attentiveness to issues of professional mobility for the women who worked as Mitanins. Various career pathways were present formally for Mitanins in Chhattisgarh. The expected trajectory of Mitanins was to become Mitanin trainers and then gradually advance to other roles in the program pyramid (see Figure 1). According to one of the program founders: "As they [Mitanins] move up, space emerges for others. Otherwise, the program will stagnate" (former SHRC leader, male, interviewed 20 January 2012).

However, even as career trajectories had been envisioned for SHRC staff, at middle levels and among some Mitanins, there still was a perception of lack of economic stability and future employment security. In some cases, SHRC personnel preferred escalating into the formal government sector, rather than progressing within the parastatal SHRC apparatus. A block-level coordinator had this to say: "I have no future in this Social work is good but for how long? Monthly compensation [for Mitanins] should be planned like in NRHM. Mitanin program people should get preference for government jobs. They are not very educated people so they [Mitanin] cannot compete otherwise" (SHRC coordinator, male, interviewed 22 February 2012).

SHRC had introduced a number of nonfinancial benefits to address career aspirations of Mitanins, including opportunities to receive training in Auxiliary Nurse Midwife and nursing schools, spousal insurance coverage, and educational support for their children. However, numerous Mitanins indicated that these opportunities were too competitive for them or did not address their needs and demands. Paradoxically, this was especially the case in *adivasi*-dominated districts where explicit efforts had been made a decade ago to hire less-educated women with a view to their social upliftment.

Outcome B—Transition to Organized Labor and Focus on Livelihoods

Mitanins were originally envisioned in the role of community volunteers, and an SHRC functionary informed us that when the program rolled out, no remuneration was offered, other than performance-based incentives for specific programs. Interviews with Mitanins, however, revealed a growing confidence and a desire for parity with regular government functionaries. A former director of the SHRC observed that Mitanins had "joined the ranks of the Auxiliary Nurse Midwife and Anganwadi Worker" (former SHRC leader, male, interviewed 23 January 2012), frontline workers of the government sector. One respondent, a collaborator in SHRC's community processes programs, highlighted the phenomenon of increasing organization of Mitanins, who had also begun to demand regular labor privileges: "In many places, Mitanin *Sangathans* or unions are emerging with demands for their own rights—payment, role as permanent workers" (SHRC collaborator, male, interviewed 9 February 2012). Foremost among these demands was that of regular status of full-time government employees.[44]

This desire for permanent livelihoods was seen by some as a threat:

> Now they are thinking of ways of getting placed in government in future, like the anganwadi workers did. The link workers are also expecting the same thing. Their

> collective bargaining has increased. This is not a challenge but a threat. If you make proper incentives and disburse [them in] timely [fashion], then these threats can be controlled. (government official, male, interviewed 23 February 2012)

Another government functionary noted this demand in terms of compensation:

> Mitanins seem to be usurping the auxiliary nurse midwife's role and the gap between them is growing. They [Mitanins] are asking to be part of the health system, doing rallies and *dharnas* [protests] saying that if the *anganwadi sahayika* [creche worker] salary has doubled (from 1500 Indian Rupees to 3000), they should get something too they are part of the system and should be paid. (government official, male, interviewed 1 September 2012)

The self-organization of Mitanins suggests the emergence of a sense of empowerment and a new form of leadership at the frontline and grassroots. This voice and leadership was, however, not yet widely reflected in the upper echelons of the SHRC pyramid structure (i.e., positions at the district and state levels), although in select cases, Mitanin trainers had "graduated" to these leadership positions.

DISCUSSION

This exploratory study offers a modest set of themes and linkages between contexts, mechanisms, and outcomes to guide further inquiry and analysis on community action for health in Chhattisgarh and beyond. Clearer and more robust demonstration will require more in-depth study and analysis; we have developed folk theories that can, through further study, be used to develop a firm mid-range theory. This methodology also revealed that neither mechanisms nor outcomes outlined were explicitly positive or negative in nature. Rather, they had varying interpretations and explanations. Further, both expected and unexpected outcomes of the process of scaling up of community action in health were observed.

This analysis is not comprehensive in covering the varied mechanisms and contexts that lead to outcomes related to scaling up. Other themes that emerged in our analysis and require further investigation include financial management, decentralization of governance (and finance), compensation of Mitanins, variations across districts, and notions of "ownership" of the program, which require more rigorous analysis and additional fieldwork to inform analysis. The roles of NGOs in the process of scaling up community action emerged frequently and strongly in this exploratory study—though we initially sought to highlight these aspects, the heterogeneity of the NGO sector and variation in their respective contributions led us to conclude that we could not yet draw conclusions on their interplay in contexts, mechanisms, and outcomes in our study. Given time constraints, moreover, we were not able to cover the entire geographical spread of the state, nor were we able to interview all policy implementers identified. We note also that the mechanisms by which community action at scale has been sustained are open to interpretation in different ways and are subject to local variations. For example, the integration of technical and social capabilities has allowed for different stakeholders to emphasize one over the other in their endorsement of the program. By design, there is likely to be local variation, shaped by myriad other factors and microcontexts beyond those we identified at the state level.

Based on our experience, we found that the configuration of contexts, mechanisms, and outcomes outlined in the realist method has potential for exploring the topic of study (scaling up of community action in health) and, more broadly, to explore a range of health policy and systems research questions. Given the subjective and dialectical nature of the phenomena being investigated, this research does not offer definitive theses of causal linkages between contexts, mechanisms, and outcomes. Instead, drawing from a postpositivist perspective, *explanatory* rather than specifically *causal* links between phenomena can be highlighted. Such an approach inherently questions the assumption of a linear or direct relationship between participation and various outcomes, at the expense of key contextual factors that influence them.[46,47] The emerging exploratory findings provide a fertile basis for more in-depth investigation of the associations between mechanisms, contexts, and outcomes, through interactive analytical cycles and application of social and policy theory.

As in this study, other studies have found that the participation of diverse stakeholders can have a salutary role in scaled-up community action programs.[48] For instance, in Nicaragua, program partners Save the Children, the local integrated health care system, and the ministry of health collaborated to introduce and lay the groundwork for community case management.[23] In their 18-country review of intersectoral action for health equity, Peake and colleagues[49] concluded that "citizen organization and participation do not arise on their own, it is necessary to support and guide them through mechanisms to provide logistical, technical, and financial support and continuous strengthening, and to link them to the real decision making power of local government." The demand for livelihoods by Mitanins is, for instance, influenced by the emphasis placed on social expertise, agendas other than health, and emphasis on career trajectories.

Hybrid stakeholdership is also characteristic of the Thai health assembly process[27] and most other forms of community action at scale, including community health workers programs across India[18,50] and deliberative councils in Brazil.[51,52] This is not to suggest that wide stakeholdership is without challenges to the participation of community itself, as discussed in the previous section; striking a balance must therefore be an expressed priority.[53] As we found in Chhattisgarh, ensuring that a culture of constructive critique is sustained over time is thorny and difficult but an important priority.

The necessity of support structures and human resource trajectories in scaled-up interventions with community participation has been observed in other studies in other low- and middle-income countries.[7,13,18] Prior research has also found, as we did, that local priorities may emerge that have to be worked into the scope of a community action program at scale: community action in health at scale frequently tends not to focus exclusively on health services but also on intersectoral and community priorities, such as food, shelter, education, and empowerment, and other social determinants of health.[20,48,54]

CONCLUSION

Drawing from the realist approach, we undertook exploratory research focused on accessing the experiential knowledge of a range of stakeholders, to elaborate how mechanisms (strategies implemented by SHRC leadership) operating in specific contexts led to outcomes related to scaling up and sustainability.

Qualitative data collection methods were employed, including policy document review, IDIs, and FGDs with a variety of policy actors and stakeholders between January and May of 2012.

This study applied the principles of the realist evaluation approach and in-depth qualitative methods to understand the contexts, mechanisms, and outcomes associated with the State Health Resource Center's stewardship of community action at scale in Chhattisgarh. We elicited the experiences and perspectives of a range of stakeholders involved with the program at various levels. We found that heterogeneous actors and voices shared governance responsibilities such that no one individual or group could completely change the course of the program. This pluralistic arrangement, coupled with unique strategies such as the avoidance of overt patronage, emphasis on local issues, and expertise and creation of clear career pathways, has contributed to the longevity of the program as well as self-organization and demand for recognition among female community health workers. These experiences over a ten-year period of scaling up the program may contain crucial lessons for decision makers in other states of India and in other low- and middle-income country settings seeking to scale up community-based programs.

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

No potential conflicts of interest to declare.

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REFERENCES

[1] Planning Commission. Recommendations of the High Level Expert Group on Universal Health Coverage. New Delhi: Government of India; 2011.

[2] Gaitonde R, Sheikh K, Saligram P, Nambiar D, Verma N. Community participation in health: national landscape. Updated 2011PHFI Working Papers. 2011. Available at http://www.uhc-india.org/downloadpdf.php?link=GaitondeRetal_CommunityParticipationinHealthTheNationalLandscapeinIndia.pdf (accessed 25 March 2012)

[3] Mansuri G, Rao V. Localising development: does participation work? Washington, DC: The World Bank Group; 2011.

[4] Uvin P, Jain SP, Brown LD. Scaling up NGO programs in India: strategies and debates. Institute for Development Research. 2000; 16(6): 1-28.

[5] Gaventa J, McGee R, eds. Citizen action and national policy reform: making change happen. London: Zed Books; 2010.

[6] World Health Organisation. Global health. Scaling up, saving lives. Geneva: World Health Organisation; 2008.

[7] Taylor-Ide D, Taylor CE. Just and lasting change: when communities own their futures. Baltimore, MD: Johns Hopkins University Press; 2002

[8] Bradley EH, Curry LA, Taylor LA, Pallas SW, Talbert-Slagle K, Yuan C, Fox A, Minhas D, Ciccone DK, Berg D, et al. A model for scale up of family health innovations in low-income

and middle-income settings: a mixed methods study. BMJOpen 2012; 2(4): e000987.

[9] Cash RA, Chowdhury AMR, Smith GB, Ahmed F, eds. From one to many: scaling up health programs in low income countries. Dhaka, Bangladesh: The University Press Limited; 2011.

[10] de Savigny D, Adam T. Systems thinking for health systems strengthening. Geneva: Alliance for Health Policy and Systems Research, World Health Organisation; 2009.

[11] Paina L, Peters DH. Understanding pathways for scaling up health services through the lens of complex adaptive systems. Health Policy Plan 2011; 27(5): 365-373.

[12] Haddad L. Scaling up "scaling up" for health. In: From one to many: scaling up health programs in low income countries, Cash RA, Chowdhury AMR, Smith GB, Ahmed F, eds. Dhaka, Bangladesh: The University Press Limited; 2011; 255-260.

[13] Rasheed S, Iqbal M, Hanifi MA, Bhuiya A. Chakaria community health project: achieving community participation in health programmes. In: From one to many: scaling up health in low income countries, Cash RA, Chowdhury AMR, Smith GB, Ahmed F, eds. Dhaka, Bangladesh: The University Press Limited; 2011; 75-86.

[14] McCannon CJ, Berwick DM, Massoud MR. The science of large-scale change in global health. JAMA 2007; 298(16): 1937-1939.

[15] Ghiron L, Shillingi L, Kabiswa C, Ogonda G, Omimo A, Ntabona A, Simmons R, Fajans P. Beginning with sustainable scale up in mind: initial results from a population, health and environment project in east Africa. Reprod Health Matters 2014; 22(43): 84-92.

[16] ExpandNet WHO. Beginning with the end in mind: planning pilot projects and other programmatic research for successful scaling up. Geneva: ExpandNet/World Health Organisation; 2012.

[17] Subramanian S, Naimoli J, Matsubayashi T, Peters DH. Do we have the right models for scaling up health services to achieve the Millennium Development Goals? BMC Health Serv Res 2011; 11(336): 1-10.

[18] IFPS Technical Assistance Project (ITAP). Community-based workers improve health outcomes in Uttarakhand, India. Gurgaon, Haryana: Futures Group, ITAP; 2012.

[19] Azad K, Barnett S, Banerjee B, Shaha S, Khan K, Rego AR. Effect of scaling up women's groups on birth outcomes in three rural districts in Bangladesh: a cluster-randomised controlled trial. Lancet 2010; 375(9721): 1193-1202.

[20] Rifkin SB. Lessons from community participation in health programmes: a review of the post Alma-Ata experience. Int Health 2009; 1(1): 31-36.

[21] Garg S, Laskar AR. Community-based monitoring: key to success of national health programs. Indian J Community Med 2010; 35(2): 214-216.

[22] Bhutta ZA, Lassi ZS. Empowering communities for maternal and newborn health. Lancet 2010; 375(9721): 1142-1144.

[23] George A, Menotti EP, Rivera D, Marsh DR. Community case management in Nicaragua: lessons in fostering adoption and expanding implementation. Health Policy Plan 2011; 26(4): 327-337.

[24] McCoy DC, Hall JA, Ridge M. A systematic review of the literature for evidence on health facility committees in low- and middle-income countries. Health Policy Plan 2011; 27(6): 449-466.

[25] Zakus JDL, Lysack CL. Revisiting community participation. Health Policy Plan 1998; 13(1): 1-12.

[26] Singh N. Decentralization and public delivery of health care services in India. Health Aff 2008; 27(4): 991-1001.

[27] Rasanathan K, Posayanonda T, Birmingham M, Tangcharoensathien V. Innovation and participation for healthy public policy: the first national health assembly in Thailand. Health Expect 2012; 15(1): 87-96.

[28] Sheikh K, Gilson L, Agyepong IA, Hanson K, Ssengooba F, Bennett S. Building the field of health policy and systems research: framing the questions. PLoS Med 2011; 8(8): e1001073.

[29] District Health Society Chhattisgarh. State Health Resource Center memorandum of understanding between District Health Society Chhattisgarh and State Health Resource Center. Raipur: State Health Resource Center Chattisgarh; 2009.

[30] Reproductive and Child Health Society, Chhattisgarh, ActionAid India. Memorandum of understanding between RCH Society Chhattisgarh and ActionAid India. Raipur: State Health Resource Center Chattisgarh; 2002.

[31] Reproductive and Child Health Society, Chhattisgarh, State Health Resource Center. Memorandum of understanding between Reproductive and Child Health Society Chhattisgarh and State Health Resource Center. Raipur: State Health Resource Center Chattisgarh; 2005.

[32] An external evaluative study of the State Health Resource Center (SHRC) and the Mitanin Programme—a statewide health sector reform initiative and community health worker programme in Chhattisgarh State, India. Bangalore: Society for Community Health Awareness and Action/Community Health Cell; 2005.

[33] Misra JP. Evaluation of the Community Health Volunteer (Mitanin) Programme. Raipur: State Health Systems Center Chattisgarh; 2011.

[34] Pawson R, Tilley N. Realistic evaluation: a primer. London: Sage Publications; 1997.

[35] Silverman D. Interpreting qualitative data: methods for analysing talk, text and interaction. 2nd ed. New Delhi: Sage; 2001.

[36] Pope C, Ziebland S, Mays N. Qualitative research in health care. analysing qualitative data. BMJ 2000; 320(7227): 114-116.

[37] Pope C, Mays N. Qualitative research: reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. Br Med J 1995; 311: 42-45.

[38] Mays N, Pope C. Qualitative research in health care. London: BMJ Publishing Group; 1996.

[39] Lincoln YS, Guba EG. Naturalistic inquiry. Newbury Park: Sage Publications; 1985.

[40] Cresswell JW. Research design: qualitative, quantitative, and mixed methods approaches. 2nd ed. Thousand Oaks, CA: Sage; 2003.

[41] Fischer F. Reframing public policy: discursive politics and deliberative practices. Oxford: Oxford University Press; 2003.

[42] Bhopal S. Chhattisgarh—a state is born. Chhattisgarh State—history web site. n.d. Available at http://cg.gov.in/profile/corigin.htm (accessed 28 March 2012)

[43] Chhattisgarh State Health Resource Centre. Swasth Panchayat introduction and methodology. 2009. Available at http://cghealth.nic.in/ehealth/SwasthPanchayat/Swasth%20Panchayat%20Survey%202009/Swasth%20Panchayat%20 Introduction%20and%20Methodology_2009.doc(accessed 15 November 2011)

[44] Sen B. The myth of the Mitanin: political constraints on structural reforms in health care in Chhattisgarh. MFC Bulletin 2005; 311: 12-17.

[45] Prasad A. The political economy of "Maoist violence" in Chhattisgarh. Soc Sci (New Delhi) 2010; 38(3/4): 3-24.

[46] Byng R, Norman I, Redfern S. Using realistic evaluation to evaluate a practice-level intervention to improve primary healthcare for patients with long-term mental illness. Evaluation 2005; 11(1): 69-93.

[47] Marchal B, van Belle S, van Olmen J, Hoerée T, Kegels G. Is realist evaluation keeping its promise? A review of published empirical studies in the field of health systems research. Evaluation 2012; 18(2): 192-212.

[48] Morgan LM. Community participation in health: perpetual allure, persistent challenge. Health Policy Plan 2001; 16(3): 221-230.

[49] Peake S, Gallagher G, Geneau R, et al. Health equity through intersectoral action: an analysis of 18 country case studies. Ottawa/Geneva: Public Health Agency of Canada/World Health Organisation; 2008.

[50] Liu A, Sullivan S, Khan M, Sachs M, Singh P. Community health workers in global health: scale and scalability. Mount Sinai J Med 2011; 78: 419-435.

[51] Coelho VSP. Brazil's health councils: the challenge of building participatory political institutions. IDS Bull 2004; 35(2): 33-39.

[52] Cornwall A. Deliberating democracy: scenes from a Brazilian municipal health council. Polit Soc 2008; 36(4): 508-531.

[53] Botes L, van Rensburg D. Community participation in development: nine plagues and twelve commandments. Community Dev J 2000; 35(1): 41-58.

[54] Narayan R. The role of the people's health movement in putting the social determinants of health on the global agenda. Health Promot J Austr 2006; 17(3): 186-188.