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Community participation through women's health collectives promoted by India's National Urban Health Mission: a realist evaluation in Chhattisgarh state

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Abstract

Background The urban poor especially women slum dwellers face health inequity including disproportionate challenges in participating meaningfully in government programmes on health and its social determinants. To allow equitable participation of the urban poor in health, India's National Urban Health Mission has promoted women's health collectives known as the Mahila Arogya Samitis (MAS) in urban slums since 2013. No evaluations of this important government initiative are available.

Methods A realist evaluation was conducted. A sequential exploratory mixed-method approach involving the following steps was applied – 1) Developing the Initial Programme Theory on action and outcomes of MAS; 2) Testing the programme theory through quantitative and qualitative methods; and 3) Refining and consolidating the theory.

Results Over three years preceding the survey, 59.1% of MAS in Chhattisgarh had taken action on healthcare related problems, 74.1% on food-security and nutrition, 60.8% on gender-based violence, 56.4% on drinking water, 70.8% on sanitation and 64.1% on social environment related issues. Around 95.3% MAS had taken action on at least one of the above six domains. The community participation through MAS was not limited to increased uptake of healthcare services but to a wider people-centred agenda on social determinants of health. The MAS were able to devise multiple strategies for identifying and solving the problems. Participatory selection of women as MAS members, autonomy in decision making, appropriate training design, regular meetings and facilitation provided to MAS by the community health workers emerged as the main enablers to their human-rights orientation and action. Their work is facilitated by the supervisory cadre under the Mitadin program under the leadership of State Health Resource Centre. The social recognition gained by women members of MAS acted as the key source of motivation to sustain their action. However, there are limitations to the actions taken by MAS. The action taken by MAS remained limited to their immediate surroundings, and they were unable to improve public accountability at the higher echelons, or bringing policy-level changes.

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Conclusion The MAS experience in Chhattisgarh offers an example of effective community participation of urban poor in health through a process that empowers the underprivileged women. Equitable community processes require appropriate design and need to be nurtured through capacity building and facilitation guided by a similar ethos. The government can further enhance community participation and advance equity in health by allowing collectives such as the MAS a greater say in health planning and monitoring.

Background

According to international declarations and covenants from 1948 onwards, community participation in the governance of public affairs and services is a right of the people [1]. Community participation has also been recognised as a key requirement for responsive and well-functioning public systems, particularly in building equitable health systems [2–5]. The Alma Ata declaration adopted in 1978, places the community at the centre of primary health care [6]. It is now understood that to advance the principles of health equity, it is important to achieve meaningful community participation in health particularly to address various social determinants of health [7]. The Sustainable Development declaration of the United Nations in 2015 also identifies community participation as a priority agenda [8]. The Astana declaration on primary health care in 2018 has further emphasised the global commitment to promote human rights and participatory governance in health by empowering communities in health and its social determinants [9].

Community participation is a complex, multi-dimensional process that is inextricably linked to the social and political context in which it takes place [10]. India with a population of 1.4 billion and its diverse health and development needs, could particularly benefit from the principles of community participation in health [11–13]. In 2011, less than a third of the Indian population lived in urban areas but there has been a clear trend of growing urbanisation [14]. A large proportion of urban population is poor and around a fourth of it lives in slums [15]. The urban poor have inequitable access to basic requirements of decent living including for housing, water, cleanliness, food, health or education [16–20]. Even though a majority of health facilities and providers are based in urban areas, the urban poor remain invisible for the health systems and excluded from the services [19, 21]. The National Rural Health Mission was launched in 2005 with an aim to strengthen healthcare and community participation in rural areas [22]. While India visualised a multi-tier network of public sector health facilities for the rural population, the need to provide health services to the urban population remained largely unrecognised [22]. The same was true for the mechanisms of community participation in health. The urban poor especially women slum dwellers face multiple forms of exclusion and find it extremely difficult to participate in government programmes on health or related services

[22]. Community participation in urban areas has been considered challenging also due to the social heterogeneity among the urban poor [23].

To address the gaps in urban health, Indian government launched National Urban Health Mission (NUHM) in 2013 [24]. The goal was to strengthen the urban health-care system, with a focus on the urban poor including the people living in slums [24, 25]. It aimed to establish a network of primary health care facilities and services to cover the urban population [25]. In addition, it articulated an intention for inter-sector collaboration with other parts of government to improve access of the urban poor to drinking water, food security and livelihoods [25]. The mission introduced community health workers (CHWs), known as the Accredited Social and Health Activists (ASHA) in urban slums [24]. A key mechanism for community participation introduced by the NUHM was of the Mahila Arogya Samiti (MAS) or women's local health collectives [24–26]. The MAS were visualised as collectives representing the community and acting as a platform for community's voice and action on health and its social determinants [27].

Each MAS consists of ten women leaders, each representing a set of around twenty households of the slum [27, 28]. The ASHA of the concerned area facilitates the process of selection of the members of each MAS. The work done by MAS members is voluntary and unpaid. Every MAS is expected to elect a chairperson and a treasurer to manage its functioning including the finances [27]. Each MAS is allocated a small sum 5,000 INR (60 USD) annually as 'untied fund' to spend on community needs and MAS has complete discretion over its use [29]. There is a provision to provide an annual round of training to MAS members and office bearers. Their training modules reflect the agenda they are expected to work on - issues related to health, environment, nutrition, sanitation, and hygiene [27].

A decade has elapsed since the roll out of MAS under NUHM. Despite being the main mechanism from the health systems side for community participation of the urban poor, little information exists on the actual functioning of MAS and its benefits. The current study was aimed at filling this critical gap. The study was focused on examining the situation on ground with respect to the following stated objectives of MAS [28]:

- i) MAS will provide a platform for convergent action on social determinants and all public services directly or indirectly related to health.
- ii) MAS will act as a mechanism for the community to voice health needs, experiences and issues with access to health services.

Further, the current study sought to add to the sparse research available on conditions and strategies that help such community participation mechanisms to be equitable and work well. We explored the factors that affect how active the MAS are in demanding better services on health, food security and nutrition, water and sanitation; in combating gender-based violence and pushing for better social environment in urban slums. The above types of problems or domains of action for MAS were selected based on the existing NUHM guidelines and training modules for MAS [25, 27, 28]. The study was conducted in Chhattisgarh, a state of India known for its pioneering role in promoting community-based health programmes [31].

The specific objectives of our evaluation study were:

1. To estimate the proportion of MAS that have engaged in action on issues related to health and social determinants of health.
2. To explore the multiple forms of action adopted by MAS to address these issues.
3. To understand the enablers and barriers to action by MAS.
4. To understand the sources of motivation for MAS to undertake such action.
5. To develop a realist model by refining an initial programme theory to explain the complex relationships between context, mechanism, and outcomes of action taken by MAS.

Methods

Study design: a realist evaluation

In a realist evaluation, programmes are viewed as interventions that play out as sophisticated social interactions in a complex social reality [32]. The MAS programme operates in the broader social, economic, and political realities of the urban slums in India. MAS members work on a wide array of issues pertaining to health and social determinants of health in their respective areas. For the programme to be successful, various actors i.e., the community, the members of MAS, and the government systems have to interact in meaningful ways. These interactions are usually governed by a convoluted interplay of local politics, the cultural milieu, and the regional ethos of the area. It is the complexity of an intervention such as the MAS that makes it suitable for a realist inquiry.

Realist evaluation focuses on four key interlinked concepts for understanding the programme - mechanism, context, outcome, and context-mechanism-outcome configuration (CMOC). Mechanism (M) spells out the key features of the intervention that bring out desirable effects [32]. Context (C) focuses on for whom the intervention works and in what circumstances it works. It relates to individual values, beliefs and organization culture, support. Outcomes (O) are the intended and unintended outcomes produced by the intervention. Context-mechanism-outcome pattern configuration (CMOC) comprises models that indicate how a programme activates mechanisms among whom, and in what circumstances, to bring about certain outcomes [32, 33].

The evaluation design has been developed in accordance with the RAMESES II guidelines for realist evaluation [32]. In accordance with the realist evaluation framework, the study involved (i) development of an Initial Programme Theory (IPT) of MAS action; (ii) testing the IPT using a sequential exploratory mixed-method approach; (iii) Refining and consolidating the theory iteratively to identify “what works” (what mechanisms work for MAS), and “in what circumstances” (the micro and macro context affecting their action).

Study setting

The study was conducted in central Indian state of Chhattisgarh. According to the 2011 Census, 8 million people constituting around a third of state's population, lived in urban areas. Around 32% of the urban population of all urban households lived in slums, one of the highest in the country [33].

Chhattisgarh state had launched its urban health programme in 2012, covering the top 20 towns in the state in terms of population [34]. The key interventions under NUHM were - establishment of primary health centres at 50,000 urban population, deployment of nurses for outreach services on reproductive and child health at 10,000 population, selection of 3770 community health workers (CHW) called Mitnin at 1000 population. The same cadre of CHWs is known as ASHA nationally. Corresponding to each Mitnin CHW, a MAS was to be constituted. The state was able to constitute 3700 MAS, covering around three million population of the urban poor. A typical MAS covers a cluster of around 200 households. Each 20 continuous households unanimously nominate a woman to represent them as a member of MAS, thus creating a collective with ten members. Each MAS then selects two of its members as office bearers - chairperson and treasurer. They manage the un-tied fund received from the government.

In Chhattisgarh, the selection process of MAS members was facilitated by Mitnin CHWs and their

supervisory cadre known as the Mitnin Trainers. The Mitnin CHWs and Mitnin Trainers also interact with the primary health centres of government and NUHM (government) officials, thus acting as a bridge between the MAS and the health systems. The Mitnin CHWs and Mitnin Trainers are responsible for facilitating meetings of MAS and providing ground-level support for activities that MAS organizes. The Mitnin Trainers are stewarded by State Health Resource Centre (SHRC), an autonomous technical body partnering with the state government and NUHM [35]. MAS members attend annual training conducted by SHRC in each city. Training provided to MAS in Chhattisgarh has included content on various health conditions and services, financial protection in healthcare, detailed information on public services and people's entitlements related to food security and nutrition, gender-based violence, climate change and human health, safe drinking water and sanitation.

An important actor in urban governance is the urban local body (ULB) which consists of formally elected representatives [36]. While the healthcare facilities and services in Chhattisgarh are managed by the state health department and NUHM, the ULBs are responsible for public health, public safety, public infrastructure (free access to water, sanitation) and development activities. Under the state's law on food security, the government is obligated to provide subsidised food to the poor people through ration shops of the Public Distribution System [37]. These ration shops are run by government appointed entities or salespeople. The early childhood development centres known as Anganwadi centre have the responsibility that children under age of six are provided with nutritional meals and pre-school education [38]. Children attending public schools are entitled to mid-day meals under the Mid-Day Meal scheme [39].

Study participants, sampling, and data collection

For objective 1 of the study, a state-wide quantitative survey was conducted. A required sample size of $n = 384$ was calculated for 5% precision at 95% confidence level and an additional 10% was added to account for non-response. Systematic random sampling was done to select a representative sample of MAS from the complete list of the 3700 MAS existing in Chhattisgarh, covering all 20 cities under NUHM. The actual survey was able to cover 401 MAS across the state. The survey tool included questions related to the domains of healthcare, food security and nutrition, gender-based violence, sanitation, drinking water and social environment (substance abuse-related problems in the locality). For each MAS covered in the sample, questions were posed to either the chairperson or treasurer. Where both the office bearers were not available to respond, one of the remaining members of MAS acted as the respondent.

For the remaining objectives (2 to 5), qualitative data was collected in 3 cities. To ensure an adequate sample, the principle of saturation was followed [40]. 20 Focus Group Discussions (FGDs) were conducted with MAS across three cities in which a total of 159 members participated. For each discussion, the dialogue continued until MAS members had nothing left to share with their fellow members and the facilitator. This was continued until no new information, and insights were coming out of the discussions. Five FGDs were also carried out with members of communities in which MAS worked (34 participants). The same stopping criterion was followed to meet data saturation. In-depth interviews were conducted with 5 Mitnin Trainers, 3 nurses, 2 doctors working in primary health centres and 2 NUHM officers to understand the perspectives of the stakeholders from NUHM.

Ethics approval for the study was obtained from the Institutional Ethics Committee of the State Health Resource Centre, Chhattisgarh. All the participants were informed about the purpose of the study and informed consent was obtained from the participants.

Data analysis

Quantitative data was analysed descriptively and confidence intervals (CI) were reported at 95% for the key indicators. Qualitative data, including focus groups and in-depth interviews, were analysed using the CMOC framework as a guide for analysis [41]. The CMOC framework underpinned the iterative process of reflection and adaptation, and analysis of data to identify relations between contexts, mechanisms of change, and outcomes under five broad themes and sub-themes under each theme [31]. The following themes were included: action strategies used by MAS, factors facilitating the action, barriers faced by MAS and the sources of motivation of MAS members.

The Initial Programme Theory (IPT) was developed by interviewing one of the program implementers':

A participatory process will be adopted for the selection of women representatives by the community members which will be facilitated by the Mitnins and their supervisors. Women living in urban slums who care about the "well-being of the community", and display leadership qualities will be selected for MAS. They will be able to work on women's issues better than others, hence, the decision to form "women's' collective" was taken. MAS members will be trained informed by a rights-based approach, and emphasized on the role of social determinants of health, and included demonstration of real-life situations, and how to address them gain knowledge

Healthcare services	Food security and nutrition	Gender-based violence	Safe drinking water	Sanitation and hygiene	Social environment
<ul style="list-style-type: none"> •Supporting Mitanin (CHWs) in raising awareness about the healthcare services they are entitled at community level, in public sector. •Using untied fund for patient transport. •Writing complaints to health authorities and district administration when services are missing in public facilities or patients are forced to pay excessively for healthcare by the contracted private hospitals. 	<ul style="list-style-type: none"> •Oversight of food quality and quantity of food grains and school based meals. •Negotiating collectively with concerned service providers in cases of gaps or denial of entitlements, helping community members in arranging documents to make their claim. •Informing the elected representatives about the problems and pushing them to intervene. •Writing complaints to municipal or district authorities in cases of denial of food entitlements, registering complaints on government hotline. 	<ul style="list-style-type: none"> •Building community pressure on the accused to give up violent behaviour, offer support to survivors of violence and follow up whether desired change takes place. •Seeking help of elected representatives in counselling the accused. •Registering complaints on government helpline, supporting the survivors, approaching the police and filing written complaints to seek immediate action against the culprits. 	<ul style="list-style-type: none"> •Accompanying CHWs in carrying out simple tests to verify water quality, using untied fund of MAS to get minor repairs done on community taps. •Negotiating with elected representatives to address shortage of water and poor quality; holding ULBs directly responsible for issues related to water. 	<ul style="list-style-type: none"> •Raising community awareness on correct ways of waste disposal, conducting collective drives for cleanliness on streets. •Talking to the elected representative to ensure that gaps in public sanitation services are addressed. •Formal complaints to ULBs. 	<ul style="list-style-type: none"> •Raising awareness on ill effects of substance abuse and gambling on health, household economy, peace of social environment and women's safety. Convincing and confronting sellers of harmful substances and raising voice against substance use and gambling in public places. •Enlisting the support of elected representative in ULBs for drives against substance abuse.

Fig. 1 Multiple action strategies used by MAS

required to work on the issues. MAS members will gain rights-oriented understanding and attitudes to address these issues MAS members will be able to identify the issues related to health and social determinants of health like food security, gender-based violence, drinking water, sanitation and hygiene by keeping an oversight and monitoring of programmes and through regular dialogue with the community, especially women. Meetings conducted by MAS will allow for facilitation of their work by Mitanin and their supervisors. Each Mitanin will look after 1 MAS to ensure effectiveness of the action of MAS. Each MAS will be provided with “untied funds” for 5000 rupees per year which will be entirely up to the discretion of MAS members. Hence, all these factors will make MAS effective in identifying and addressing the problems of the community.

Results

Out of the 401 MAS covered in the quantitative survey, 92.1% had been in existence for nine years or more. All the respondents were women. Around 29.4% of the participants belonged to the vulnerable social groups of scheduled castes and tribes and 59.5% belonged to the category known as the other backward classes. While in case of 69.5% of the MAS, an office bearer (chair/treasurer) was the respondent, other members responded for the remaining MAS surveyed. Around 89.2% of the respondents had received training from Mitanin Trainers

Table 1 Proportion of MAS that have taken action on different problems in last 3 years ($n = 401$)

Domains	Proportion of MAS reporting action (% with CI)
Healthcare services	59.1 (54.1–63.8)
Food security and nutrition	74.1 (69.8–78.3)
Gender-based violence	60.8 (56.0–65.5)
Drinking water	56.4 (51.5–61.2)
Sanitation	70.8 (66.3–75.2)
Social environment	64.1 (59.4–68.8)

at least once. Out of the surveyed MAS, 97.3% (96.1–98.5%) had conducted their monthly meeting during the preceding month.

The various types of action taken by MAS has been listed in Figure-1.

Proportion of MAS engaged in various action

Table 1 reports the proportion of MAS engaged in action on the six domains over the three-year period preceding the survey. The action on improving people's access to benefits of food security and nutrition programmes was most common, followed by the action on sanitation.

There were 4.7% (3.4–6.0%) MAS who had not acted on any of the six domains in the three-year period. Around 79.8% (76.1–82.4%) of MAS had acted on at least three domains (Table 2).

Table 2 Proportion of MAS that have taken action to address problems out of the six domains ($n=401$)

Coverage of domains in action	Proportion of MAS (% with CI)
Undertaken action to address problems related to at least one of the six domains	95.3 (93.2–97.3)
Undertaken action to address problems related to at least two of the six domains	89.8 (86.8–92.7)
Undertaken action to address problems related to at least three of the six domains	79.8 (75.8–83.7)
Undertaken action to address problems related to at least four of the six domains	62.5 (57.7–67.2)
Undertaken action to address problems related to at least five of the six domains	41.1 (36.2–45.9)
Undertaken action to address problems related to all the six domains	16.7 (13.0–20.3)

Enablers to the action by MAS

A majority of the MAS members who participated in the FGDs worked in the unorganised sector in occupations such as manual labourers, domestic workers and as street vendors. A majority of them spoke the native language of Chhattisgarh while the rest spoke Odia, a language native to the neighbouring state of Odisha. Most of the participant members were married, and in the age group of 22–55 years. In the FGDs with communities where the MAS worked, around three-fourth of the participants were women.

Building capacity, skills and inculcation of beliefs and values through trainings

CMOC1

MAS members have developed a value system that dictates that people have the right to free and good quality healthcare services, food security, clean drinking water, cleanliness and hygiene in their streets, and gender-justice (O). The inculcation of this value system has been made possible with the help of trainings that is imparted to them (C). Their conviction has been one of key drivers to the action taken by them (M).

Government should provide services free of cost to the poorest sections and it should be good quality too. Nobody should have to go to the private hospital to get necessary treatment or surgery, where poor people get looted. [in the context of publicly funded insurance scheme in Chhattisgarh] (MAS member, City-1, FGD 18).

CMOC2

MAS members have a keen interest in attending trainings (O), a major intervention under the programme (C) as they view these trainings as an opportunity to learn relevant new information related to healthcare, government schemes and programmes related to food security,

water, sanitation etc. as this information empowers them, to take the role of a community leader (M).

We get to learn about health conditions like tuberculosis, pregnancy-related conditions, and other health issues. We also learn about latest government programmes and schemes through our training. It allows us to learn new things, such as about gender and women's rights. With this information we can make others aware of their rights, and lead the people to get their rights (MAS member, City-2, FGD 4).

Meetings of MAS are a platform to consolidate action and in turn promote action

CMOC3

MAS members regularly attend meetings every month (O) although they do not receive any monetary incentive for that given it allows them to consolidate the work they have done in the entire month and discuss the progress they have made with respect to the community's health and well-being (C). They discuss their successes, and their learnings and this encourages them to take further action (M).

We learn new things in every meeting, and we discuss the work we did the last month in these meetings. When we meet and discuss what we are doing it makes us feel like we are doing something important for the people. (MAS member, City-2, FGD 5)

Sometimes when I have time, I sit with these women when they meet-up. I am not a member but I like to listen to what they discuss because many things that they discuss are important. (Community member, Female, City-1, FGD-21)

CMOC4

Meetings are also a platform to raise issues that MAS may struggle to deal with (C). In quarterly (cluster-level) meetings, MAS members get an opportunity to share those issues with Mitans Trainers and cross-learning from other MAS (M). This has allowed them to come up with solutions for difficult challenges (O).

In one of our meetings, after we shared the issue of repeated attempt of overcharging by the ration shop for sugar. We sought guidance from the Mitans Trainer. We had the copy of government order in our phone (sent by the Mitans over messaging application) and we could show it to him. He understood that we are not going to pay more than the fixed rate (MAS member, City-1, FGD 3).

Facilitation and support by mitans and their supervisors

CMOC5

Mitans guide the MAS in identifying patients who require transport or other support (C) as she is the first point of contact with the health system (M). Hence, MAS

has been able to support vulnerable groups like elderly, women, disabled and the poor (O).

One woman in our locality lost a lot of blood during her delivery. Mitadin had taken her to the hospital. Mitadin called us and asked us to help her in arranging the blood and we asked people around, and we could quickly get some donors. We were so relieved that we could save her life. We mobilize quickly and act on a situation whenever required. (MAS member, City-1, FGD 15)

CMOC6

The supervisory cadres of Mitadin Trainers and Coordinators provide continuous support and facilitate the trainings and meetings (C). They make themselves available for MAS both through formal mechanism like meetings and informal mechanisms (over phone etc.) as and when required (M), which allows MAS members to address complex problems and to sustain their efforts (O).

One time we were getting a bad odour from the water of the public tap. We decided to write an application. But Mitadin Trainer suggested that we do the water testing first to make a stronger case in front of the municipal officers. The issue got fixed after a few. (MAS member, City-2, FGD 4)

Public accountability dialogue gatherings as a platform to Raise community's issues

CMOC7

MAS members attend the annual public accountability meetings (locally known as *Jan Samwad Sammelans*) every year along with the Mitadin CHWs where they get an opportunity to raise problems related to health, food, nutrition, sanitation, drinking water etc. (C) where they speak on behalf of the people of their community, making them the representative of the community in front of elected representatives and community leaders (M). It helps them in raising long-pending issues that people face, getting responses from the elected representatives and ensuring that the problems that have been raised are taken by the authorities (O).

Mitadin guides us with Jan Sammelan, we feel that it gives us a chance to become the "face of our people". Last time we could get hold of our local elected representative [Ward Councillor] in front of the legislator and we complained about the erratic water supply. (MAS member, City-2, FGD 5)

"Our Ward Councillor reached out to me to enquire whether the availability of calcium supplements had improved. I was pleasantly surprised to know that he was aware of the issue. He told me that Mitadin and her associates [MAS] had raised this issue in a Jan Sammelan." (Medical Officer, UPHC, City-1, IDI-4).

Being able to build unity among themselves in spite of the cultural/lingual differences

CMOC8

MAS members have been able to forge a sense of unity and solidarity among themselves despite they are often heterogenous groups with different languages, caste and cultural backgrounds (M), and this equips them with an ability to identify and solve the issues of all the groups that they represent and solve them (O). This has been possible despite of the fact that MAS programme was rolled in a socially and culturally urban heterogenous environment (C).

We make sure that there are no conflicts amongst us. We are Chhattisgarhiya [people who speak Chhattisgarhi language] and they are Odias [people who speak Odia language] but at the end of the day we have to work together for the people of our locality. So, we don't hold any personal grudges. (MAS Member, City-1, FGD 15)

"MAS members have taken the ownership of the community and issues that affect them. I have worked in areas where there is a lot of migrant population, but the MAS members still work together actively. (NUHM official, IDI-3)

Support of the community and other community-based workers in taking action

CMOC9

Community members often find themselves in situations where they do not get the healthcare services they need, or are denied of food-related entitlements or face drinking water shortage etc. (C). Over the years, MAS has been working to address these issues. This has allowed them build credibility of their work amongst the community (M), which is why they receive the support of the community whenever they intervene on issues related to health, food security etc. (O).

They [MAS] take a lot of efforts to solve people's problems. Recently, many people in our locality picked up eye-flu. These women ensured that people knew what precautions to take, and they even bought eye-drops for some people. I remember once I was given bad quality rice by the ration salesperson, and two of them talked to the salesperson on my behalf. (Community member, Male, City-1, FGD23)

These ladies try to solve our issues by taking them to the local representatives [ward councillor, municipal corporation]. (Community member, Female, City-1, FGD23)

CMOC10

To address the issue of Malnutrition amongst children, it is critical to maintain the quality and quantity of food served in Anganwadi Centres (C). MAS members ensure that good quality of food being given to children by keeping an oversight on the programme, and helping the

Anganwadi when she faces any problem related to her work (O) by being able to foster a cordial relationship with Anganwadi Workers (women workers in early childhood development centres) (M).

Anganwadi worker did not have a helper [associate of Anganwadi worker under the ICDS programme] which we why she was not able to give hot meals to the kid, used to prepare it at home and bring it to the centre. We drafted an application for the higher officials to fill that post. Soon that post was filled and helper was appointed; she would cook hot meals, with more green vegetables since then. (MAS Member, City-3, FGD 6)

Barriers to the action taken by MAS

Lack of responsiveness of elected representatives

CMOC11

There are numerous issues related to health, food security, gender-based violence etc. that require intervention of local elected representatives (C). However, many MAS members did not receive much support from elected representatives like Ward Councillors as a result of undervaluing voices of women (M). This affects the motivation of MAS members and their action (O).

Mitanins and MAS go to each and every lane of the area and to check for issues with cleanliness, drinking water, street lights etc., and we try to fix it. But isn't it his (ward councillor's) job to do it when the people have elected him? We cannot rely on him. If he had been helpful, we could have improved the situation in a better way. (MAS member, City-3, FGD 6)

Inadequate funding of the program

CMOC12

Many MAS members reported that they often receive money late. All of them believed that an annual sum of 5,000 INR (60 USD) is not adequate for the communities they serve (C). They suggest that lack of funds limits timely action on issues (O).

5,000 rupees [60USD] is nothing in today's times. If we have to help a few people of the community by paying for their transport to the hospital or cover travel expenses to bank, we are not left with much money. (MAS member, City-2, FGD 4)

Sources of motivation for MAS members

The MAS members face multiple risks in their action including unpleasant confrontations with the local elite such as the ration shop salesmen and men who are accused of gender-based violence. There can be possibility of backlash from the powerful local elite who can harm them in many ways including by denying government benefits to their families. The families of MAS members enjoy the increased social status that being a member of MAS brings but tend to discourage actions

that are seen as audacious socially or may put the interests of the family under risk. Yet, we found that the MAS members continued to be enthusiastic about getting involved in action for rights of their communities. Why do members of MAS continue to be engaged in action? What are the sources of their motivation?

Social recognition and respect

Most MAS members felt that they have gained recognition and respect from the community members ever since they have become a part of the programme. This also includes their own family members and not just the other community members. However, they still feel there is a lot more can be done to ensure that MAS gets better recognition, thereby sustaining their motivation.

When we go home and tell our family about things that we learnt, and the action we take, we feel proud of ourselves and they also feel proud of us. Or else why will they send us to do this work, we are not earning from it. (MAS member, City-1, FGD 1)

I have seen some of the members accompanying elderly patients to the hospital. I know their name now, earlier I knew the Mitanin only. (Staff Nurse, UPHC in City-1, IDI-2)

Success of the efforts intensifies the desire to do more

Every time MAS members made some efforts to address an issue, and they managed to help some people of the community successfully by defending their rights, they were even more motivated than before.

She [one of the MAS members] has been coming to our centre with a disabled woman who needs medicines for her Diabetes. When we had first screened her, her blood sugar was high, but now it is under control. She has been accompanying her to the centre ever since. (Staff Nurse, UPHC, City-1, IDI-5)

Personal stake in the well-being of the community

Given these women we selected from the same community that they work for, and they share the concerns, the problems and the issues faced by the rest of the community, they also seek motivation from this reality.

We keep an eye on the quality and the quantity of food that is prepared in the Anganwadi Centre. We were worried about the quality of food being served in the Anganwadi centre until last year. We didn't want the any kid to eat poor quality food. But they have started getting nutritious and fresh food in the Anganwadi Centre after we wrote formal complaints to higher authorities regarding the quality of food. (MAS member, City-2, FGD 5)

Discussion

This is the first study on MAS, a key government initiative to build community participation of the urban poor in health and its social determinants. The study found that most of the MAS in Chhattisgarh were very active and around 80% of MAS had engaged in action on three or more of the six key action domains studied. MAS members used strategies of raising community awareness about government programmes and entitlements, organising collective support for those in need, keeping oversight of government welfare programmes, negotiating collectively with the service providers, putting collective pressure on the local elected representatives and writing formal complaints to government authorities. However, there was scope for improvement in the oversight of local health services which remained largely a responsibility of the Mitnin CHWs. The study also showed that MAS were unable to improve public accountability at the higher echelons or bring policy-level changes due to a lack of governance mechanisms to formalise their role.

What makes MAS successful? Table 3 provides a refined programme theory in terms of what works and under what conditions to produce the outcomes. The key mechanisms to their action are the annual training, meetings, and support of Mitnin CHWs and their supervisors, all inculcating an equity and human rights-based value system in MAS, in addition to building their capacity in terms of knowledge of entitlements and practical problem-solving. MAS members have gained social recognition in their communities because of their work and it acted as a powerful motivational force for their sustained action. MAS enjoys a great deal of autonomy over the work they do, allowing them to act on issues important to the community. However, not all mechanisms are equally effective and some mechanisms are less effective than others. For instance, although MAS has been able to create wider enabling local networks, they have had limited success in questioning authority at higher levels. They also receive limited community support (apart from women) on issues of gender-based violence. Even though they have a personal stake in the work, limited untied funds, and lack of remuneration prevent them from taking further action, particularly in the domain of health rights.

The existing literature on health systems and community participation has been heavily focused on specific diseases like HIV, Malaria and Tuberculosis or services for maternal and child health in the low-and-middle-income countries (LMICs) [42–47]. Most of these programmes are often short-term programmes that use community participation as a strategy for increased uptake of services offered or for a narrow range of health promotion activities [47, 48]. However, a systematic review showed that many of these programmes were not

truly participatory, as many of the interventions were didactic in nature [49]. The health problems were identified and the interventions were determined by those outside the community. Such initiatives view community participation as a means to achieve certain tangible, short-term goals of the health programme [50]. Contrary to it, MAS members in Chhattisgarh view their participation in community matters as their prerogative, as not something which is tied to one programme or any specific intervention. Communities can benefit when participation is not merely strategy to fulfil a specific programme goal but a cross-cutting phenomenon whether it is under the ambit of a programme or not. This will help in addressing inequity in health by improving effective community action on social determinants of health. Community participation, therefore, becomes an intrinsic part of the fabric of society [50].

Although most studies on community participation in health deal with health service delivery, some studies showed the importance of a participatory approach to action on social determinants of health [51]. In an example from the US, health centres were able to improve civic engagement and political participation to address issues like the health impact of systemic racism, and women's reproductive rights [51]. A study from Ghana and South Africa demonstrated the importance of participation of health committees to address social determinants of health, and promote health equity [52]. The study viewed the 'right to health' as a social determinant of health and it showed that the committees were able to improve public accountability in the provisioning of health services, and address the cultural and social barriers that affect the uptake of health services [52]. In the current study, we found that MAS is a women's collective that asserts people's right to health through multi-sectoral, and multi-issue activism that goes beyond healthcare to address the broader social and political problems of marginalized sections of the society.

MAS is a women's collective and its role needs to be understood from a gendered lens as well [53–55]. It is important to understand the power structures that govern how women participate in matters of health and its social determinants. To understand power structures that limit women's participation, we need to look at their relationship with the community and with the state. Literature shows that women's reproductive obligations are the major barriers to community participation [48]. In the present study, we found that MAS members have transcended domestic spaces, as well as the mainstream male dominated public spaces and have created an alternative public space for themselves. The work done by MAS has gained visibility and the members of MAS have received social recognition for their work. Their physical presence in these spaces have benefited

Table 3 Refined programme theory of MAS action

Mechanism	Context	Outcome
M1. Participatory selection of women has allowed selection of women who take keen interest in working for benefit of the community.	C1. The implementers believed that women, when empowered with knowledge, and provided with support, are best suited to identify and address the issues that affect them. C2. Adequate number of facilitators (Mitandin CHWs and Mitandin Trainers) were available to ensure genuine community process for selection of MAS members.	O1. MAS members are highly motivated and driven by an equity-based value system.
M2. Trainings and monthly meetings play a key role in inculcating in MAS members an equity and human rights-based value system and understanding of social determinants of health.	C3. Training content and methods are suited to human rights-based values and information on specific entitlements. The content is designed and delivered by SHRC.	O2. MAS members raise awareness about government schemes and policies, help people in availing the benefits of schemes and programmes related to healthcare, food security etc. and take action when people get denied their entitlements.
M3. Through trainings and meetings, MAS members gain knowledge about government programmes. They feel empowered to hold information that are not easily accessible for common citizens.	C3. Training content and methods are suited to equity and human rights values and information on specific entitlements.	
M4. Mitandin does not take up a role of a leader of MAS despite her strong presence. This allows MAS members to work independently while also receiving support from the Mitandin worker.	C4. The programme guidelines mandate selection of office bearers of MAS independent of the Mitandin.	O3. MAS members have developed leadership qualities that enables them to engage in equity and rights-based work independently while drawing on the support and guidance from Mitandin CHWs and Mitandin Trainers.
M5. Continuous facilitation and support by Mitandin Trainers across all the aspects of their work has allowed MAS to sustain their work. They help MAS by updating knowledge and building skills in community mobilisation, problem-solving and negotiating.	C5. The work done by MAS is facilitated and supported by Mitandins as well as Mitandin Trainer.	
M6. MAS members are feminists, that feel united as women and as an underprivileged section of urban economy and society. They are able to overcome the cultural and caste differences.	C6. All MAS members are women and each one is selected by a contiguous set of 10–20 households. The training content and programme culture promotes solidarity among women.	O4. MAS members are able to build consensus on key issues and action strategies and put up a united front while negotiating for rights.
M7. In addition to drawing support from the CHWs, MAS members are able to create wider enabling networks.	C7. MAS members have forged a relationship with frontline workers, community leaders, elected representatives. The programme provides platforms for MAS members to interact with a variety of relevant actors and they are seen as facilitators in helping the government programmes in meeting their objectives of benefits reaching the poor.	O5. MAS is able to intervene in multiple domains.
M8. MAS members have a personal stake in the well-being of the community.	C8. MAS members are a part of the community they represent.	O6. MAS members always remain vigilant about the local problems and discuss ideas to solve those issues during meetings, informal interactions. Being aware of collective issues faced by community, MAS members have evolved as the representatives of the community and have an influence in the community.
M9. The autonomy that MAS enjoys has enabled them to take action based on the community's needs,	C9. MAS members are not employees of government but are volunteers involved in a state-run programme. Their work draws upon the training they receive but is not dictated by any strict norms or government directives. They are not handed any specific list of tasks that they are expected to complete.	O7. The work of MAS is highly relevant to needs of their communities. This increases community support to MAS.
M10. MAS has gained community support on most issues including the ones that require MAS members to confront powerful interests.	C10. MAS has a track record of solving many problems and have access to adequate support from the programme side which allows them to escalate the complaints and raise larger issues. MAS members have gained credibility in the community.	O8. MAS continues to enjoy success in its efforts and support of community and this in turns sustains their motivation to do more.

Table 3 (continued)

Mechanism	Context	Outcome
M11. Social recognition and respect from the community is a major motivational factor for MAS members. A positive reinforcement cycle of successful efforts drives MAS to take further action to solve the problems faced by the community drives them to take further efforts to solve the problems faced by people and struggle for the rights of people.	C11. MAS consists of underprivileged women who have limited avenues to gain recognition. They feel empowered by being a part of MAS and their efforts and success fetches them social recognition.	O9. MAS members continue to be a part of the collective and to undertake multiple actions to address a wider range of problems.

the community and has also improved the implementation of state-run programmes. MAS members engage in negotiation and confrontation with local elites such as the ration salespersons, elected representatives and government civil servants, to demand the rights of people. They have managed to improve the responsiveness of the elected officials. They are also able to raise their voices against gender-based violence, by challenging the notion of subservience that is expected from women. Notably, their work on gender-equality and justice was not limited to gender-based violence but goes beyond it. They have managed to empower women at local levels by starting conversations about gender and talking about equality in social, political and economic spheres of life. Adolescent girls and other women view them as a group of feminist women who can be easily approached when they find themselves in a difficult situation. From a feminist standpoint, there can be an argument that involving women in unpaid social work is just another way to reinforce the gendered division of labour. However, it is important to keep in mind that the MAS members come from working-class backgrounds and all of these women believed that the work they have been doing as MAS has empowered them with knowledge, recognition and social networks [56]. They value their autonomy to decide what they want to do and how much time they want to spend on that.

This is the first attempt at evaluation of MAS initiative. The findings from a representative survey coupled with a rigorous qualitative inquiry allowed us to arrive at our findings. Some lessons can be drawn for India’s urban health programme from the findings of this evaluation. Other states in India should also have supervisory cadres such as the Mitandin Trainers and a programme ethos of equity and human rights [57]. Though MAS in Chhattisgarh have gained credibility in the communities they work, there is a need for the government to devise mechanisms to show greater recognition of the work MAS are doing and increasing the financial support for MAS can be one of the ways. Another important aspect is of how much formal space the government offers to community collectives such as MAS on the decision-making table where programmes get designed or monitored [58–60]. Or how seriously the feedback of MAS is taken by the government institutions. Though government guidelines

position MAS as an empowered body to monitor the services of government, the actual practice of government is to largely ignore their voices [59]. In the current example, though the MAS are able to find ways to make themselves heard and their complaints to be acted upon by local authorities, without a formal position, or legal recognition, the government authorities are not bound to act on their feedback.

There may be a need to examine the role of socio-political context in which the MAS are able to overcome the barriers of caste, gender, religion and ethnicity which otherwise plague many of the institutions and efforts aiming for community participation [47]. The role of MAS vis-à-vis the local elected bodies and the mainstream political parties and elections also needs further exploration. Comparing the MAS with the experience in rural areas of Chhattisgarh can shed further light on what contextual and design factors make community participation effective in the case of MAS. Women have complete autonomy over the agendas that would be taken up, and discretion over untied funds unlike Village Health, Sanitation and Nutrition Committee (VHSNC), where the decision-making process is shared with men (representatives of Panchayat) [61]. The work done by MAS aligns with the needs of the community which has been a challenge for VHSNCs [61]. However, more detailed studies are warranted to make an appropriate comparison between the functioning of the two committees.

The model of MAS is that of a state-funded programme but with an equity and human-rights orientation and the capacity to ensure sufficient support to collectives of underprivileged women. Further research is recommended to compare the model offered by MAS with the other existing models, such as those relying on legal mechanisms to include communities mandatorily in the governance of public services.

Limitations

The information presented here on the proportion of MAS acting on specific domains is based on their self-reporting. No quantitative data was collected from the communities that MAS works for, though the widespread action of MAS was confirmed by the communities qualitatively until data saturation was achieved. MAS members and the communities were not involved at the stage

of designing data collection tools or analysis which could have made the research more participatory. Though we foresee that it will be a challenging endeavour, we recommend that future evaluations of MAS and similar programmes should attempt greater participation of community actors in research design. As for the author's positionality, the evaluation was conducted by SHRC and NUHM as implementors of the program, both of which believe in the principle of community participation in health.

Conclusion

The MAS experience in Chhattisgarh demonstrates how effective community participation of the urban poor can be achieved in health through a process that genuinely empowers the underprivileged women. The community participation through MAS was not limited to increased uptake of healthcare services but to a wider people-centred agenda. Community processes to be equitable and effective require appropriate design and nurturing through capacity building and facilitation guided by an equity-based ethos. Collectives such as MAS can flourish when they enjoy a great deal of autonomy in deciding their actions. There is scope to take the community participation up by several notches and further advance health equity if the governments allow collectives such as MAS a greater say in planning and monitoring of health and other public services.

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Author contributions

SG and SA contributed to the study design; SA contributed to literature review; SA and SG contributed to writing of the manuscript. SA, MD and SG analysed the data; SG, SA and MD contributed to design of tools; SA, MD, AS, LX, PN contributed to the data-collection. PT, JMQ and AKS reviewed the manuscript. All authors read, reviewed and approved the final manuscript.

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Data availability

The datasets used and/or analysed during the current study are available from the corresponding author and State Health Resource Centre, Chhattisgarh on reasonable request.

Declarations

Ethics approval and consent to participate

The study was approved by the Institutional Ethics Committee of State Health Resource Centre, Chhattisgarh. It was carried out with written informed consent of all respondents and legal representatives. All methods were carried out in accordance with relevant guidelines and regulations.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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