

# Implementing a “convergent” framework of action against childhood malnutrition in urban informal settlements of Mumbai: Frontline perspectives

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## ABSTRACT

**Context:** The National Nutrition Mission (*POSHAN Abhiyaan*) intends to “converge” nutrition-related program components across sectors (nutrition, health, water, and sanitation). In this study, we have examined the perspectives of Anganwadi workers (AWWs), the frontline workers of the Integrated Child Development Services, on working in convergence with the public health sector. **Methods:** This exploratory qualitative study was done between June 2018 and June 2019 in two urban informal settlements in Mumbai. We conducted in-depth interviews with 26 AWWs and their supervisors, purposively sampled and diversified in terms of age, education, and years of experience. We used the software NVivo version 12 to aid analysis. **Results:** Most AWWs acknowledged that a convergent framework of action between “nutrition” and “health” was likely to be beneficial to the community. However, they also shared that cross-sector convergence was currently limited due to technical unfamiliarity with “health-sector” issues in the frontline, discomfort with data sharing, and lack of meaningful incentives for joint work. Broader organizational challenges such as poor infrastructure and lack of supervision, as well as challenges in the urban context (migration and cultural barriers) further hindered joint activities. **Conclusions:** The findings indicate that critical structural gaps in the urban setup of ICDS need to be addressed and AWWs need to be better familiarized with the changing roles expected from them under *POSHAN Abhiyaan*. To work better with the health sector, the work timings of AWWs need to be aligned with those of the health sector and meaningful financial incentives need to be put in place for cross-sector activities.

**Keywords:** Anganwadi workers, convergence, National Nutrition Mission, urban informal settlements

## Background

The concept of comprehensive primary health care, reaffirmed at the Astana declaration in 2018, recognizes nutrition as one of the key pillars of health.<sup>[1]</sup> Indeed, malnutrition has been called a “silent emergency” that accounts for increased morbidity and

mortality in children globally.<sup>[2,3]</sup> India, having a large population base of 1.37 billion, bears half the world’s burden (25.5 million) of wasted children and one-third (46.6 million) of the world’s stunted children.<sup>[4]</sup> Malnutrition accounts for 68.2% of deaths in the under-five age group in India.<sup>[5]</sup>

Given this enormous burden, the policy landscape in India is replete with initiatives intended to tackle malnutrition. The Integrated Child Development Services (ICDS) has been a long-standing government scheme since 1975, intended to tackle malnutrition through a set of integrated interventions

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including supplementary nutrition, growth monitoring, and nonformal education for children. ICDS is run mainly through a network of Anganwadi Centers, which are courtyard preschools for every 800–1000 households.<sup>[6]</sup> However, recognizing the need for more focused action against malnutrition, the Indian government launched the National Nutrition Mission (NNM) (“*Poshan Abhiyan*”) in 2017.<sup>[7]</sup> The NNM is a multiministerial attempt toward a malnutrition-free India by 2022. The Mission is intended to “converge” nutrition-related program components across sectors (such as ICDS, health, water, and sanitation) for women and children during the “*first 1000 days*” and embrace digitalized progress-tracking mechanisms across sectors.<sup>[8,9]</sup>

This “intersectoral” approach adopted by the NNM signifies higher-level policy buy-in into a “convergent” framework of action against malnutrition. Such an approach has been advocated in many global forums as well.<sup>[2,10]</sup> Indeed, the core principle of convergence is deeply rooted in notions of “intersectoral action,” strongly advocated in the Primary Health Care Approach of the Alma Ata in 1978 and recently reaffirmed at Astana in 2018.<sup>[11,12]</sup> However, for such principles to get operationalized successfully, a strong buy-in into a convergent framework of action is needed from the frontlines of care delivery. There is some evidence that indicates that the rural frontlines of ICDS view convergent action favorably.<sup>[13]</sup> However, little is known about how “convergence” across sectors is perceived in the frontlines of service delivery in urban informal settlements.

In this study, we have tried to examine the attitudes of frontline workers of ICDS, the Anganwadi workers (AWWs) based in urban informal settlements, on working in convergence with the public health sector.<sup>[1]</sup> AWWs are part-time workers associated with ICDS, whose role is to provide preschool services, supplementary nutrition, health education, and monitor growth in children.<sup>[6]</sup> In addition, they are to mobilize the community for certain activities done through the public health department (such as antenatal care check-ups and immunizations) (ibid). Under the NNM, AWWs are also expected to collect and maintain cross-sector data for tracking maternal and child health and nutrition indicators in digital forms.<sup>[8]</sup> This study captures some of the perceptions of AWWs on the above cross-sectoral roles they are involved in.

## Methods

This qualitative study was done between June 2018 and June 2019 in two urban informal settlements in Mumbai. We conducted interviews with 22 AWWs, purposively sampled and diversified in terms of age, education, and years of experience [see Table 1]. We asked AWWs about their views on convergence with the health sector, willingness to do cross-sector work, monitoring of joint work, as well as perceived benefits/challenges. We also interviewed four individuals from the Anganwadi supervisory cadre to triangulate some of the issues that were raised by AWWs, particularly in reference to organizational monitoring and supervision.

**Table 1: Demographic characteristics of AWWs (22) and supervisors (4)**

Category	Details
Gender	Female: 25, Male: 1
Age	26-35 years: 8 36-45 years: 10 Above 45 years: 8
Education	7-12 years of schooling: 12 Graduate: 12 Post-graduate: 2
No. of years of service	Less than 5: 1 Five to ten: 13 Eleven to twenty: 9 Above 20 years: 3

The above interviews were conducted by authors RS, SR, and AJ, in local language and lasted 25 minutes to an hour. Interviews were recorded, translated into English, and transcribed. We used a mix of inductive and deductive methods to analyze the data. Data was coded initially using themes from the interview tool but allowing for new thematic ideas to be included. Data was further sorted and organized into broader thematic categories indicative of patterns of thinking that emerged<sup>[14]</sup> and we report our findings based on these categories. We paid particular attention to themes pertaining to the organizational and local “context” in which AWWs worked, brought up by them during our conversations. The software NVivo version 12 was used to aid the coding process. We obtained local permissions from relevant government authorities for this study and took written informed consent from all participants.

**Study limitations:** One limitation of this study is that it is small in scale and limited to two urban informal settlements in Mumbai. We do not claim that the study findings are generalizable across settings. However, our discussions with Anganwadi workers were rich and detailed, and we feel that the study has some useful reflections to offer for current nutrition policy in the urban setup.

**Ethical statement:** Ethical approval was obtained from the Institutional Ethics Committee of the Bandra Holy Family Medical Research Society in Mumbai. Permissions were obtained from local public authorities to conduct discussions with the Anganwadi workers.

## Findings

Most AWWs acknowledged the relationship between “nutrition” and “health” concerns in women and children [see Table 2, sample quote 1] and shared that a convergent framework of action between the two sectors—ICDS and health—was likely to be beneficial to the community. However, AWWs also shared that convergence between the two sectors was currently limited to the following: 1) AWWs assisting in mobilizing the community for specific immunization campaigns; 2) Doctors from primary health facilities visiting Anganwadis occasionally; 3) interactions of AWWs with frontline workers of the health sector when asked

**Table 2: Sample quotations from our field discussions**

Quote number	Details
Sample quote 1	“When a child has not received his immunizations correctly, he is prone to illnesses in the future and getting malnourished. Soldiers work at the border to prevent enemies from attacking. Likewise, immunization is required for the good of children.” (AWW, 44 years, education not known)
Sample quote 2	“Our main role is to preschool education to children in the age group of 3-6 years. Out of the six major services we provide, this preschool education is the most important, along with nutrition.” (AWW, 34 years, graduate)
Sample quotes 3-5	<p>“Once I referred a woman for delivery in the public hospital. The referred woman came after delivery and told us that she was scolded there and was upset with me. How can I refer others there now? If we refer people there, there should be good service.” (AWW, 48 years, graduate)</p> <p>“During (* scheme), we distributed the tablets for the health sector. But it became a big problem...chaos. People came and threw the tablets in the Anganwadi and asked one teacher ‘Are you a doctor?’ It would have been better if someone from the health department has been there with her.” (Supervisory cadre, Postgraduate education)</p> <p>“The health sector has to take responsibility in case of any mishap in the community because of their medicines (iron tablets). Because we have distributed the medicines and if something goes wrong, people will catch us and not trust me after that.” (AWW, 34 years, studied up to 12<sup>th</sup> standard)</p>
Sample quote 6	“Once it happened that they (frontline worker of the health sector) wanted a list of mothers and children that we had put together personally. They needed that. But our madam told us that we need not give when we are doing the work, why should we give the ready-made list to them?” (AWW, 38 years, studied up to 12 <sup>th</sup> standard)
Sample quote 7	“The new generation may handle it (electronic data entry), but the old people like us, we have eye problems, and we don’t even know how to handle it.” (AWW, 55 years, studied up to 10 <sup>th</sup> standard)
Sample quote 8	“See, my colleague has 60 centers and I have more than 50 for supervision. We cannot do administrative office work as well as good supervision of such a large number of centers.” (Supervisory cadre, graduate).

to share data (no routine data-sharing processes were reported); and 4) referrals made by AWWs to health facilities. Most AWWs reported field-level convergence of their work with that of the health sector to be sporadic.

Below, we discuss the reasons reported for limited field-level convergence under four headings: immediate concerns that AWWs had about working with the health sector, broader organizational challenges, contextual challenges in urban informal settlements, and concerns of AWWs regarding their changing roles under the NNM.

**Immediate concerns about working with the health sector**

We discuss below concerns expressed by AWWs on their ability to work with the health sector.

- Most AWWs perceived themselves mainly as part-time preschool “teachers,” who distributing food ration. They did not perceive other mandates such as the mobilization of all children for immunization and health-sector referrals as “core” components of their jobs [see Table 2, sample quote 2].
- AWWs often reported technical unfamiliarity with what they considered as “health-sector” issues like family planning, antenatal care, and routine immunization. They were worried about mobilizing the community for these issues as they saw themselves as ill-equipped to deal with the side effects/other technicalities of such interventions [see Table 2, sample quotes 3–5].
- Under NNM, collating data across sectors has been emphasized both as a monitoring process and as a means to foster dialogue between the health and the nutrition sector. However, AWWs were used to working in a cultural environment that conventionally proscribed data sharing.

They were uncomfortable giving data to, as well as obtaining data from, health-sector colleagues [see Table 2, sample quote 6]. This discomfort appeared to be rooted in a concern that data discrepancies (between their data and the “other sector” data) could lead to questions about their work and consequent punitive actions. Thus, data sharing in the frontline usually happened only when imposed by higher authorities, and the process itself did not appear to facilitate dialogue between AWWs and frontline health staff as intended.

- Most AWWs felt that they were given few meaningful incentives for participating in cross-sector activities such as mobilizing children for an immunization campaign. In addition, they reported that joint community mobilization with frontline workers of the health sector was often difficult due to differences in work timings (AWWs shared that frontline outreach staff of the health sector did most of their community outreach work in the morning hours, a time when AWWs were required to teach).

**Broader organizational challenges faced by AWWs that deter cross-sector work**

AWW spoke of several challenges that they faced in their day-to-day work. First, within ICDS, there was no dedicated outreach worker for nutrition, and most AWWs felt that it was unfair to expect them to double-up as these in their part-time roles. In addition, AWWs reported several infrastructural challenges (lack of rented space, weighing machines to do routine growth monitoring, and not having a helper to distribute ration). Further, AWWs often reported not getting their monthly honorarium on time. All this made most AWWs we spoke to feel justified in delivering suboptimal or incomplete work. In an environment of limited supervision, overwhelmed by structural challenges, AWWs suffered with sector-specific as well as cross-sector work.

## Contextual challenges in working in urban informal settlements

AWWs reported that work in urban informal settlements had its own challenges. Due to a large migrant community that was reported as “constantly increasing” in numbers, the list of beneficiaries needed regular updating. The beneficiary community lived in rented spaces, and frequent moves within informal settlements made following up with referrals or cases of malnourished children challenging for AWWs. Further, unlike rural regions with more homogenous populations, informal settlements had mixed groups from different geographies in India, sometimes creating language and cultural barriers between AWWs and the beneficiary community.

Unlike rural areas, Anganwadis themselves operated from temporary, one-room rented spaces that were often poorly ventilated and cramped. This was an issue that was repeatedly expressed by almost all Anganwadi workers. One Anganwadi worker put it poignantly:

*“Anganwadi centers in slums are very small. No space and rented room. For rupees 750, this is what we get. If I keep khaao (ration) here, no place for children. Also, it’s unhygienic. But getting any place is challenging and we have to accept what we get. We don’t have space to conduct meetings. This creates problems at times. We cannot prepare and teach children properly. In the rainy season, it is even more unmanageable.” (Female, 34 years, working as an AWW for 10 years)*

In addition, given the lack of community-level activities (such as the Village Health and Sanitation day that happens in rural regions), AWWs did not interact with the frontline workers of the health sector on a routine basis. Under such conditions, most AWWs limited themselves to doing tasks that were concerned with their immediate reporting obligations such as some amount of preschool teaching, filling up data forms, and distributing food ration.

## Concerns about changing roles in the context of the NNM

Within ICDS, AWWs were originally meant to be “honorary” part-time workers and saw their work as a flexible commitment for a low salary, rather than a job that demanded stringent accountability. With the coming in of the NNM, AWWs felt that their roles were getting “formalized.” This was frustrating for most of the older AWWs, who believed that they had not signed up for such formal roles. In addition, most AWWs felt that they were not being paid in accordance with the new work obligations that were expected of them. Older AWWs we spoke to were hesitant about the use of electronic “tablets,” which were slowly getting integrated into the system as a means to monitor progress [see Table 2, sample quote 7]. In addition, the supervisor-AWW ratio was low, and the few supervisors available were not able to routinely monitor AWWs or handhold them in the data-reporting process [see Table 2, sample quote 8]. Thus, while “real-time” progress-tracking data, as required by

the NNM, was being collected digitally, there were few quality checks reported in the urban ICDS setup. Overall, our discussions clearly showed that AWWs had several concerns regarding their changing roles in the system.

## Discussion and Conclusions

In this study, we have tried to unpack the perceptions of AWWs working in urban informal settlements toward cross-sector convergence. We found that while most AWWs understood the concept of convergence, they spoke of limited convergence between “health” and “nutrition” activities on the ground. AWWs attributed this weak status of convergence to immediate linkage issues between the two sectors such as different sector-specific priorities, technical unfamiliarity with the other sector, and concerns about data sharing and lack of incentives. AWWs also shared broader organizational issues (infrastructural constraints and a mismatch in role expectations) and urban contextual challenges (migrant population, unmapped areas, and cultural barriers) that limited their sector-specific as well as cross-sector roles. Further, AWWs expressed many concerns about their changing roles and were not always receptive to changes in their conventional roles and manners of working. Our findings also indicate that there was a lack of supervision and handholding during this change process.

The findings from our study suggest that a multi-pronged approach is needed to operationalize convergent action against malnutrition on the ground. These are discussed below.

First, critical structural gaps in the urban organizational setup of ICDS need to be addressed such as the lack of rented space, non-working weighing machines, and poor-quality ration. Such gaps have been pointed out by several previous studies as well<sup>[15-17]</sup> and there is no denying that it is challenging and demotivating for AWWs to work under such conditions. The lack of basic supplies (thermometer, growth chart, etc.) has been noted by another study in an urban slum in Gujarat as well.<sup>[18]</sup> In addition, in our study, AWWs perceived a strong mismatch between the financial incentives they received and the current role expectations from them. Further, field-level supervision and support from higher-ups need to be strengthened as AWWs expressed several concerns about being left “alone” in the community to face adverse consequences of cross-sector fieldwork.

Second, our study findings suggest that AWWs need to be better prepared for the changing roles they are now expected to execute. In our setting, some AWWs reported that “digital conversion” of data to be a technical challenge. Most were unhappy with being closely monitored and they saw stringent monitoring as a mismatch with the informal work roles they had initially signed up for. Similar issues have been pointed out in another recent study from rural Bihar and Madhya Pradesh.<sup>[19]</sup> The same study had also pointed out that adoption of the new software had helped AWWs feel better equipped to do community engagement, but in our setting, such perceptions were not apparent. At the time

of this study, several technical training sessions had been initiated to prepare AWWs for this change from manual to digital data maintenance. Despite this, AWWs had only few opportunities to give feedback on the practical constraints that they faced while doing digital reporting.

In addition, as per the NNM, the intention of cross-sector data sharing is not merely to improve monitoring; the process is considered as having potential to trigger cross-sector action at the frontline.<sup>[20]</sup> However, under conditions of non-overlapping work timings between the frontline workers (ICDS and health), our findings indicate that data sharing has essentially remained a mechanistic process so far, done mainly to fulfill reporting obligations. There is clearly a need to work out alternate ways of data sharing that align better with frontline work routines.

Third, we need to reflect more on how convergence can be operationalized in urban informal settlements that face specific contextual issues such as low space availability and a migrant target population. Other studies on the urban workings of ICDS have showcased similar issues.<sup>[16]</sup> In contrast, a rural study has pointed out that frontline workers in these contexts often lived in the same community, had informal bonding, and could meet during local village events.<sup>[13]</sup> Such local events were often missing in action in urban setup, and differences in timing and geographies in which these frontline workers lived made cross-sector work even more challenging. Our evidence clearly shows the need to work out urban adaptations of the convergence approach. Indeed, recent data indicates that there is much scope for improving the utilization of ICDS services in urban areas.<sup>[21]</sup> We must highlight here that there are very few studies in the literature that have addressed issues in the implementation of ICDS in urban setups, and this is clearly an area for undertaking further research.

Box 1 highlights the key directions that we have discussed above.

**Box 1: Summarized suggestions for improving cross-sector action from our field experiences**

- To align the work timings of Anganwadi workers to those of frontline workers of the health sector to increase interactions and make joint field work feasible.
  - To put in place meaningful financial incentives for Anganwadi workers to participate in activities led by the health sector.
  - To strengthen supportive supervision systems so that Anganwadi workers feel comfortable engaging in activities led by the health sector.
  - To routinize data-sharing meetings between Anganwadi workers and frontline workers of the health sector.
  - To encourage dialogue on field-level data discrepancies (for in migrant populations, data discrepancies can be routinely expected) and discourage punitive action that follows data discrepancies.
  - To encourage cross-sector events in the urban community that are jointly led by both the ICDS and the health sector.
- In addition, sector-specific strengthening suggestions include addressing critical structural gaps in ICDS, familiarizing Anganwadi workers on the changing role expectations from them, and increasing financial incentives in line with these changing role expectations under NNM.

This study has broad relevance to recent discussions on primary health care as frontline primary care providers have legitimately been concerned about malnutrition and its sequelae in the wake of the COVID-19 pandemic. Not only have the myriad links between COVID-19 and malnutrition been recognized,<sup>[22,23]</sup> there has been more policy interest in “whole of society” approaches and cross-sector action.<sup>[24,25]</sup> Given these discussions, reflecting on how best to link primary health care and nutrition in practical ways, beyond what is written in high-level policies becomes important.

To conclude, this study does not intend to devalue the importance of the converging health and nutrition implementation. It stands with the previous papers that endorse cross-sector action on health and malnutrition.<sup>[20,26]</sup> However, the paper intends to point some real-world challenges in operationalizing the convergence concept that need to be addressed. Implementation studies from other countries suggest that the “buy-in” of community-level workers (akin to AWWs) is imperative to the ultimate success of policies.<sup>[27,28]</sup> This holds true for the convergence policy as well. For the convergence concept to get rooted, we need to urgently strengthen the frontlines of care delivery of ICDS in urban informal settlements, proactively enable work between frontline workers across sectors, as well as adequately support other ground-level “change” processes that engender cross-sector action.

**Endnote 1:** Public health services in the city of Mumbai are run by the Municipal Corporation of Greater Mumbai (MCGM). The urban public health infrastructure is pyramidally arranged in three tiers: primary (including urban health posts and dispensaries), secondary (peripheral and specialty hospitals), and tertiary (medical college hospitals).

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The authors certify that they have obtained all appropriate participant consent forms.

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**Conflicts of interest**

There are no conflicts of interest.

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