Assessment: Effects of Urban Community Mobilizers on Improving Primary Health Care Service Delivery Medchal -Malkajgiri District of Telangana, India

2023

ACCESS health international

PPHF
PEOPLE TO PEOPLE HEALTH FOUNDATION

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List of Contributors from ACCESS Health International

- Girish Bommakanti, Director Operations and Strategic Growth
- Dr. Shrikant Kalaskar, Senior Technical Specialist (Public Health and Capacity Building)
- Dr. Shweta Singh, Senior Technical Specialist (Public Health and Research)
- Dr Chilshu Chandran, Project Officer, (Public Health and Capacity Building)
- SreeMeena Satyanarayana, Project Associate
- Radha Guvvala, Intern
- Anil Kumar, Intern

List of Abbreviations

ASHA- Accredited Social Health Activist
ADP- ASHA Disease Profile
ANM- Auxiliary Nurse and Midwife
BDK- Bastidawakhana
BP- Blood Pressure
CHW- Community Health Worker
CPHC- Comprehensive Primary Healthcare
DHFW- Directorate Of Public Health & Family Welfare
DMHO- District Medical and Health Officer
DPO- District Program Officer
FHW- Female Health Worker
FGD- Focus Group Discussion
GNM- General Nursing and Midwifery
HR- Human Resources
ICMR- Indian Council of Medical Research
IEC- Information, Education & Communication
LMIC- Low- and Middle-Income Countries
MO- Medical Officer
MOU- Memorandum of Understanding
MOHFW- Ministry of Health and Family Welfare
M&E- Monitoring and Evaluation
NFHS- National Family Health Survey
NHM- National Health Mission
NPCDCS- National Programme for Prevention and Control of Cancer, diabetes, cardiovascular diseases, and Stroke
NCD- Non-Communicable diseases
OP- Outpatient
OPD- Outpatient Department
PPHF- People to People Health Foundation
POC- Point of contact
PBS- Population-based screening
PO- Program Officer
RBS- Random blood sugar
TAG- Technical Advisory Group
UPHC- Urban Primary Health Centres
VHR- Village Health Registry
WHO- World Health Organization

Acknowledgment

We were fortunate to have received generous time, insights, and guidance from various people throughout our evaluation. These contributions helped us ponder and question every step of the review process. Hence, we sincerely thank the following people and organizations for their contributions.

DEPARTMENT OF HEALTH AND FAMILY WELFARE:

- *State Program Officer*
- *District Program Officer*
- *Medical Officers*
- *Staff Nurse*
- *Auxiliary Nurse Midwife*

PEOPLE TO PEOPLE HEALTH FOUNDATION:

- *Technical Advisor*
- *State Program Officer*
- *Monitoring and Evaluation Officer*
- *Community Mobilizers*

MAGNA CARTA:

- Director

We are also thankful to the community members who have given their valuable time and feedback and without their support, we would not have completed this review process.

Suggested citation:

People to People Health Foundation (PPHF) and ACCESS Health International. Assessment: Effects of Urban Community Mobilizers on Improving Primary Health Care Service Delivery, Medchal -Malkajgiri District of Telangana, India. May 2023.

Available from: https://pphfglobal.org/

Executive Summary

India has a high mortality rate in Southeast Asia due to Non-Communicable Diseases (NCDs), accounting for over two-thirds of deaths in the region. The NCDs responsible for the highest proportion of mortality are Cardiovascular Disease, Diabetes, Cancer, and Chronic Obstructive Pulmonary Disease. The burden of NCDs is increased in urban slums due to specific issues such as urbanized lifestyle affecting diet choices, tobacco and alcohol consumption, accessibility to basic healthcare services in the areas and utilisation of local resources for seeking health. To deal this, the Ministry of Health and Family Welfare launched the National Programme to Prevent and control cancer, diabetes, cardiovascular diseases, and Stroke (NPCDCS) in 2010, now **National Programme for Prevention & Control of Non-Communicable Diseases (NP-NCD)**. The ongoing rise in NCD incidence due to alterations in lifestyle and rapid urbanization, the program prioritised population-based screening all people above 30 years of life. Despite these interventions and efforts, the program is facing challenges in implementation due to constraints like shortfall in skilled and dedicated workforce, lack of political will along with lack of awareness in the community for prevention and community about NCDs.

According to NFHS 5, the NCD burden in Medchal-Malkajgiri district of Telangana is high with 16% women and 19% men having high blood sugar levels and 26% women and 35% men reported with high blood pressure. This is coupled with a shortage of frontline health workers. It posed a challenge to the public health system. As per the latest data from the ministry's annual ASHA update, Telangana is one of the states which is lagging in engaging the ASHAs, particularly in urban areas.

The People-to-People Health Foundation (PPHF) proposed a program called "ASPIRE" (Intensifying Actions on Non-Communicable Diseases) with support from Sanofi under their CSR initiative to strengthen NCD service delivery at the primary health level in Medchal-Malkajgiri district of Telangana. The ASPIRE project aimed to empower the community, health system, and healthcare workers for early prevention, detection, and management of NCDs through an integrated approach. PPHF proposed the addition of a "Community Mobilizer" at each of the 52 Basti Dawakhanas (BDKs) and 2 selected pilot Urban Primary Health Care Centers (UPHCs) as part of their ASPIRE program to strengthen NCD service delivery. This concept was inspired by the ASHA model of the NHM, which serves as the first interface between the community and the health system.

The Community Mobilizer was envisioned as a dedicated health worker who would establish linkages between community and BDKs and assist to improve community knowledge, awareness about NCDs, support community mobilization activities, early screening, referral, and follow-up under the NPCDCS program. The Urban Community Mobiliser Intervention successfully accomplished its primary objective of linking community with the urban primary NCD healthcare system for receiving services. It resulted in screening of 3,43,767 individuals in 2022, indicating a 74% increase compared to the pre-intervention period. The mobilizers also facilitated conducting 481 screening camps and completing 5,81,253 village health registries (VHR) and 3,47,191 ASHA disease profile (ADP), representing a 34% and 21% increase in VHR and ADP compared to the pre intervention period in the district in same period.

Most of the project budget, amounting to 85%, was directed toward mobilizing individuals to undergo NCD screenings. This model bore an expense, additional cost of INR 32.23 per person to facilitate the screening process, apart from all the state expenses of NPCDCS program. The additional cost covered

through the project is to bridge the gaps for mobilizing people, screening and essential medical supplies.

This project highlights the potential benefits of community health workers for NCD management in urban primary care settings. It clearly demonstrates the significance of community engagement in the success of population-wide health interventions. The force field analysis identifies factors like strong administrative support, earmarked dedicated budget for project activities, employment opportunities for women and team training acted as facilitating factors and helped the project attain its objectives. However, challenges included initial low community acceptance and a short project period, which delayed project momentum initially.

The evaluation of this initiative revealed that stakeholders both within and outside the health system in Medchal-Malkajgiri district welcomed this model. CHWs have the potential to provide effective NCD services if provided with sufficient training, supervision, and appropriate remuneration to maintain their motivation and service quality. This pilot project is a testament to the fact that introducing a dedicated health worker has led to significant changes, with a minimal financial burden. It demonstrates how cost-effective initiatives can be brought in HR challenging setting in Indian terrain, which not only brings desirable efforts but also ensure sustainability if adequate support is given by state administration.

The stakeholders acknowledged that community mobilizers are interested in being trained and upskilled to support the communities they serve. They also aspire for their role to be recognized by the health system. Community mobilizers are well accepted in the community they serve. All the stakeholders agreed to the contribution made by community mobilisers in NCD screening, and they have the potential and desire to further contribute to other thematic areas as well. Our findings align with the literature, highlight the need for CHWs to play a fundamental role in improving healthcare awareness, and mobilizing the population.

Introduction

Non-Communicable Diseases (NCDs) are health conditions that impact individuals for a prolonged duration, causing a significant socio-economic burden to the country. NCDs pose a challenge to the attainment of the 2030 Agenda for Sustainable Development Goals, which seeks to reduce the probability of premature mortality from any of the four major NCDs by one-third between the ages of 30 and 70. This agenda acknowledges NCDs as a significant obstacle to sustainable development (WHO fact sheet, 2022). NCDs are a by-product of genetic, physiological, environmental, and behavioral factors, thus requiring a collective response. NCDs exert a significant burden through the economic and epidemiological lens.

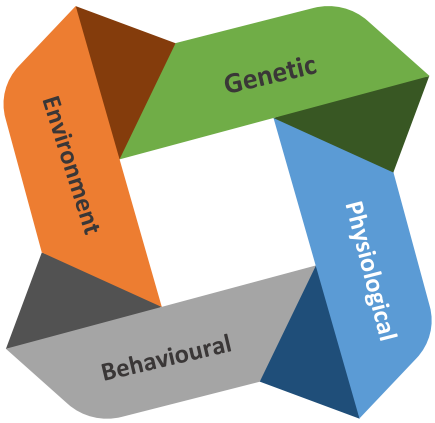

Figure 1 Factors exerting impact on NCDs

Global Scenario of Non-Communicable Diseases

Every year, NCDs contribute to the mortality of 41 million people, which accounts for 74% of all deaths worldwide. In a given year, 17 million people die before age 70 due to NCDs, and 86% of these fatalities occur in Low- and Middle-Income Countries (LMIC)(WHO fact sheet,2022). Since 1990, there has been a marked shift towards a more significant proportion of burden due to years lost due to disability from non-communicable diseases and injuries(Vos *et al.*, 2020).

Indian Scenario of Non-Communicable Diseases

India accounts for more than two-thirds of mortality due to NCDs in south-east Asia (Jayanna *et al.*, 2019). NCDs are posing a significant public health challenge. As per ICMR state-level disease burden in India in 2016, 64% of the mortality is due to NCDs. In particular, four diseases, viz., Cardiovascular Disease, Diabetes, Cancer, and Chronic Obstructive Pulmonary Disease, account for the highest proportion of mortality (Dandona, G. Anil Kumar, *et al.*, 2017). According to World Health Organization (WHO) 2013, over half of all new cancer cases are diagnosed in India. Cervical cancer accounts for approximately 6-29% of all cancers in women in India (Bobdey *et al.*, 2016). Many NCD deaths that occur too soon can be avoided. If timely interventionsare not made for NCD prevention and control, the (WHO) predicts that by 2030, there will be 55 million annual deaths worldwide due to NCDs(National Health Portal).

Initiatives to tackle the burden of NCDs in India

The Ministry of Health and Family Welfare, Government of India, launched the National Programme for prevention and Control of Cancer, diabetes, cardiovascular diseases, and Stroke (NPCDCS) in 2008 to prevent and manage NCDs through lifestyle and behavioral changes, early detection, and effective management—the program aimed towards strengthening the healthcare capacity at various levels. The program supported infrastructure by including NCD clinics and Cardiac care units and conducting the opportunistic screening. Given the ongoing rise in NCD incidence due to lifestyle and rapid urbanization alterations, the Ministry of India strategized for screening at the population level(Operational Guidelines of NPCDCS (Revised - 2013-17)). Despite these interventions and efforts, the program has faced challenges in implementation due to constraints like a lack of human resources, inadequate training quality, and lack of awareness in the community(Raina, 2016; Ainapure, Sumit and Pattanshetty, 2018).

Concept of population-based screening

Screening refers to applying simple tests in a healthy population to identify the asymptomatic individuals with the disease. The Ministry of Health and Family Welfare implemented a population-based NCD program as part of the Ayushman Bharat Comprehensive Primary Healthcare (CPHC) initiative in 2017. The program aims to screen all men and women over 30 for NCDs such as hypertension, diabetes, and oral, breast, and cervical cancer, with referrals to secondary and tertiary-level government hospitals for diagnosis, treatment, and management.

Despite several systems and procedures, the national and state government put in place, the utilization of screening services could be better. As per the NFHS-5 data in Telangana, only 2% of women aged 15 to 49 have had a cervical cancer screening test, below one percent have ever undergone a screening test for breast cancer, and 2% have ever experienced a screening test for cancer of the oral cavity, which is slightly less than among men (2.4%)(Telangana NFHS-5 Factsheet). In a study conducted in Telangana, difficulties in implementing a population-based screening program are attributed to a need for more trained health workers, insufficient infrastructure, and equipment. Furthermore, a need for more awareness among the community of the effort put into organizing screening camps in Telangana, like studies conducted in northern India(Thumoju *et al.*, 2018; Krishnan *et al.*, 2021; Jaacks *et al.*, 2022).

The public health system of Medchal-Malkajgiri was facing a series of challenges in the form of high NCD burden, with 16.5% females and 18.6% males having high blood sugar level, 26.5% females and 34.8% males having high blood pressure (NFHS-5). This is coupled with a shortage of frontline health workers. It posed a challenge to the public health system. As per the latest data from the ministry's annual ASHA update, Telangana is one of the states which is lagging in engaging the ASHAs, particularly in urban areas (*state has only 90% ASHAs in position against the target*).

Exemplars for population-based screening

People to People Health Foundation (PPHF) has demonstrated partnerships with various state governments like Jharkhand, Maharashtra, Punjab, Karnataka, etc., in recent years for improving NCD outcomes through Project SCREEN. Based on the learnings gained from previous initiatives, PPHF proposed a program to strengthen the NCD service delivery at the primary health level entitled “ASPIRE”. The project ASPIRE was designed as an integrated approach to prevent and detect NCDs and strengthen the capacity of the workforce to deliver high quality healthcare services for NCDs. The project proposed having an additional health volunteer as the “Community mobilizer” implemented by the People-to-People Health Foundation. The concept was inspired by the ASHA model of NHM dedicated towards community mobilization ultimately strengthening the government’s initiatives towards controlling and preventing non-communicable disease. The project was supported by Sanofi under their CSR initiative.

Design

Context of the evaluation

Multiple studies quote that the poor performance of frontline health workers can be attributed to a need for more clarity in their roles and responsibilities and burden due to excessive workload. Thus, a shortage of frontline health workers can impact the effective delivery of programs. If we analyze the scenario of the availability of frontline health workers in the Medchal district, it is apparent that the numbers are significantly low compared to the desired threshold. In fact, out of the 900 required numbers of ASHAs, only 161 positions are filled, as quoted by the state NCD Program Officer. The district is largely urban (91%), with a shortage of FHWs, so the NCD program struggled to give the required results.

Introducing an additional human resource was an attempt to address those challenges. It worked towards educating and mobilizing the community, ultimately improving healthcare access and outcomes for all. After the project had completed its major intervention, where 61 Community mobilizers had worked for 12 months, it became important to undertake a comprehensive review of the work undertaken and whether the project could attain its objectives.

Objectives

The evaluation intends to understand and measure the effectiveness of an additional health worker called "Community Mobilizer" engaged by PPHF to support various aspects of NCD service delivery. Community Mobilizers are health volunteers selected locally, trained, and were involved in community sensitization, mobilization, and referral for NCD screening.

Specific Objectives:

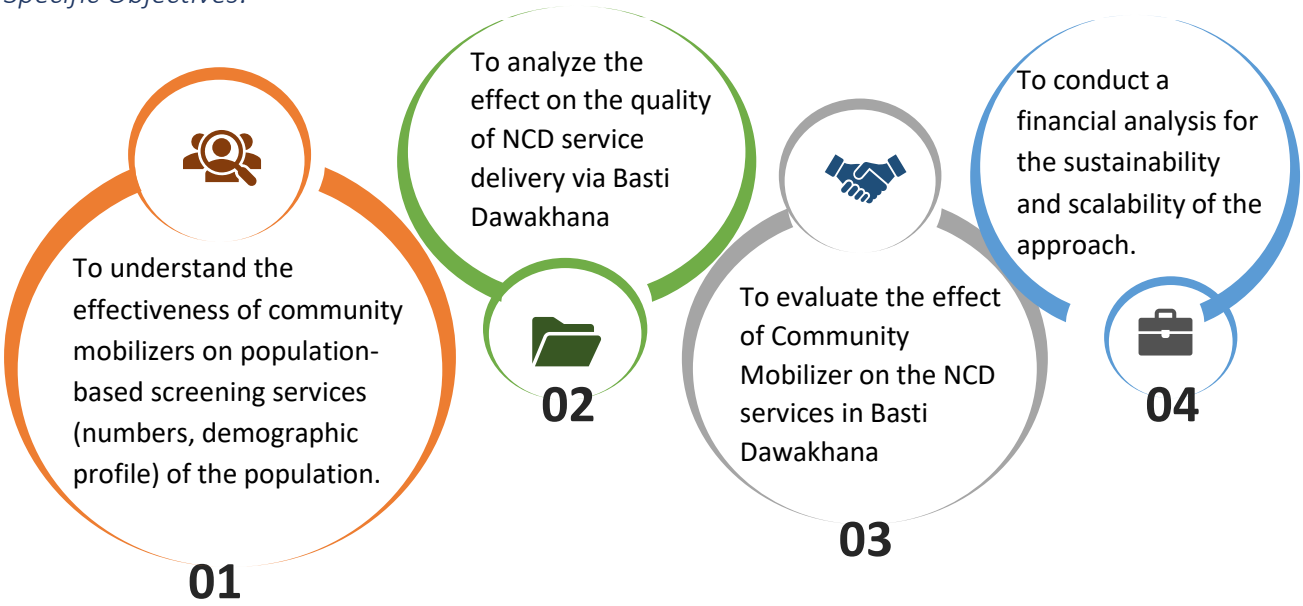

Figure 2 Specific Objectives of the study

Project evaluation Area

Medchal- Malkajgiri is located in the southern part of Telangana and is the second most populous district, standing next to Hyderabad. The district comprises 15 mandals and two revenue divisions.

Figure 3: Map of Telangana with highlighted study area

This study aimed to understand the effectiveness of the urban health worker intervention for NCD service delivery. The evaluation focussed on multiple parameters to look into the effectiveness and efficiency of the intervention at the community and facility levels. In addition, the study identified the key drivers and constraints and used Force field analysis as an evaluation tool to provide a better understanding of the model.

Study Design

This study consisted of a mixed-method approach over three months, from Jan-March 2023.

Sampling

The sample involved all the stakeholders in the project, including team members from PPHF, Magna Carta (local partner), state and district-level health officials, health care providers, and community members. Purposive sampling was used to identify the stakeholders and ensure that all the relevant stakeholders were involved as part of the study.

Table 1 The sample details are depicted in the table below:

In-depth interviews		
Respondent	*Number of Interviews*	
State Official/ District Official	2	
PPHF Officials	3	
Medical Doctors	4	
Staff Nurse	3	
ANM	2	
Community mobilizer	5	
Community members	13	
Total: 32		

Focus Group Discussions*		
Community mobilizer	1	
Community members (Mix of male and female)	2	
**Each Focus Group Discussion consist of 8-10 members*		

Study tools

A total of three interview semi-structured questionnaires were developed for different categories of stakeholders along with a Focused Group discussion guide. It was designed to gain multiple perspectives from various stakeholders on the effectiveness of the urban frontline healthcare worker intervention on NCD service delivery.

Data Collection method

Document/ Desk review: All the relevant information from the PPHF like annual reports, Rapid Formative Assessment report (Comprehensive assessment undertaken by PPHF to understand the issues pertaining to NCD in the district in 2021), and quarterly M&E reports documents/reports, including data obtained from the state NCD portal, were reviewed.

In-depth interviews: 32 in-depth semi-structured interviews were conducted in person after obtaining the written consent and at the respondent's convenience. The answers were recorded on paper and a recording device for further translation and transcription. The interview questions were conducted in Telugu, Hindi, and English based on the respondent's comfortability.

Focused Group Discussions: 3 FGDs were conducted in this project evaluation. The focused group discussions employed a similar methodology and featured open-ended questions. Each session of a focused group discussion lasted for a duration of 45 to 60 minutes, and approximately 8-10 respondents participated in each FGD.

Pilot testing

Pilot testing was conducted before starting the study to check the feasibility of the information to be collected. A total of 5 respondents were selected from the Hyderabad district to undergo the interview process to look into the tool's efficacy. After the pilot testing, a few changes were made to the tools in terms of language, and a few probes were added as per the responses received during interviews.

Ethical Approval

The ethical approval for the study was taken from the Department of Public Health, School of Health Systems, University of Hyderabad. In addition, informed written consent was taken from all respondents before data collection, where the respondents are informed about the aim of the study. Ethical consent form used is attached as an annexure.

Data entry, processing, and analysis

Qualitative data was analyzed using thematic analysis. The data-audio verbatim was the first transcript into the local language and then translated into English after familiarization with the audiorecording. Quantitative data obtained was analyzed using MS Excel. Both quantitative and qualitative data were triangulated while analyzing the results

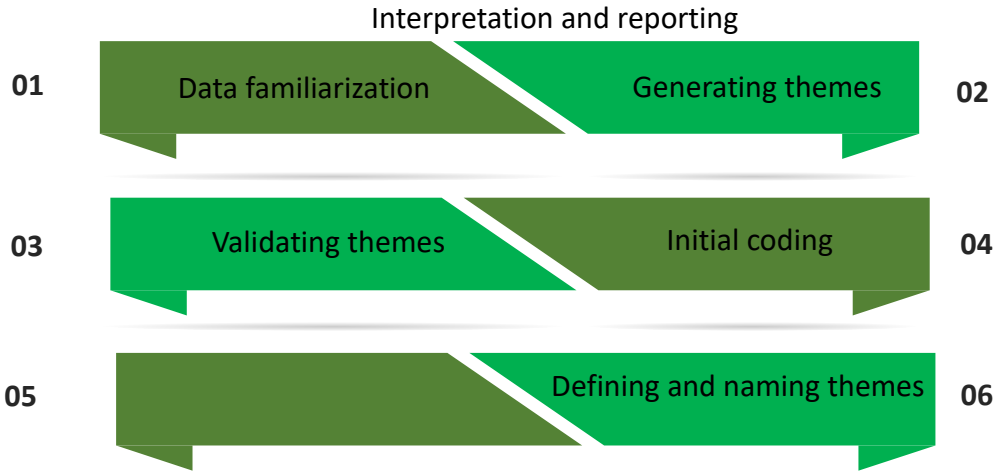

Figure 4Thematic analysis by Braun and Clarke

Limitations of the study

- The absence of data availability at the BDK level limits our ability to make comments on its performance and effectiveness. This evaluation is drawn largely on pre and post stage, but lacks data on aspects other than NCD screening, such as training status, HR availability.
- Furthermore, the study did not cover any other district for comparing the results due to time constraints.

Findings

Introduction to the ASPIRE Project

People to People Health Foundation (PPHF) has demonstrated partnerships with various state governments like Jharkhand, Maharashtra, Punjab, Karnataka etc., in recent years for improving NCD outcomes through project SCREEN. Based on the learnings gained from previous initiatives, PPHF proposed a program to strengthen the NCD service delivery at the primary health level entitled "ASPIRE". The project ASPIRE was designed as an integrated approach to prevent and detect NCDs and strengthen the capacity of the workforce to fight NCDs. The project was rolled out in phases in various Basti Dawakhanas and Urban Primary Health Centres (UPHC) in the Medchal-Malkajgiri district of Telangana. All the activities undertaken as part of the project were undertaken at the urban primary healthcare level to reduce morbidity and mortality due to NCDs. The program's overall goal is to meet the primary health care needs of the underprivileged urban poor population.

Objectives of ASPIRE Project

The major objectives of the project were:

- To build the capacity of UPHC health teams to deliver essential NCD services.
- To increase the public awareness on NCDs through health education and promotion related to critical health issues in the community.
- To strengthen the implementation of NCD population-based screening (PBS) guidelines at the UPHC

Project's Duration and Phases

The project was spread over a duration of three years. The detailed year-wise phases of the project are mentioned below:

Table 2: Phases of the project

Year	Phases of the Project
1st Year, 2021:	Initiation and Conception: • The need assessment was undertaken by PPHF. • The project objectives and partners were finalized.
	Planning: • The project scope, budget, timelines and milestones were framed. • The recruitment and training of the designated project team was undertaken.
	Launch and Execution: • Officially launched in 2021 and recruitment, and training community mobilizers.
2nd Year, 2022:	Execution of project specific activities: • Community mobilisation • NCD screening in camps and facilities • Monitoring at monthly and quarterly patter
3rd Year, 2023:	The project activities are being monitored regularly. Project Closure: An impact assessment by an external party is being undertaken to understand the impact of the program.

Project's Target Population and Intervention Site

The Project's beneficiaries and intervention sites are depicted below:[1]

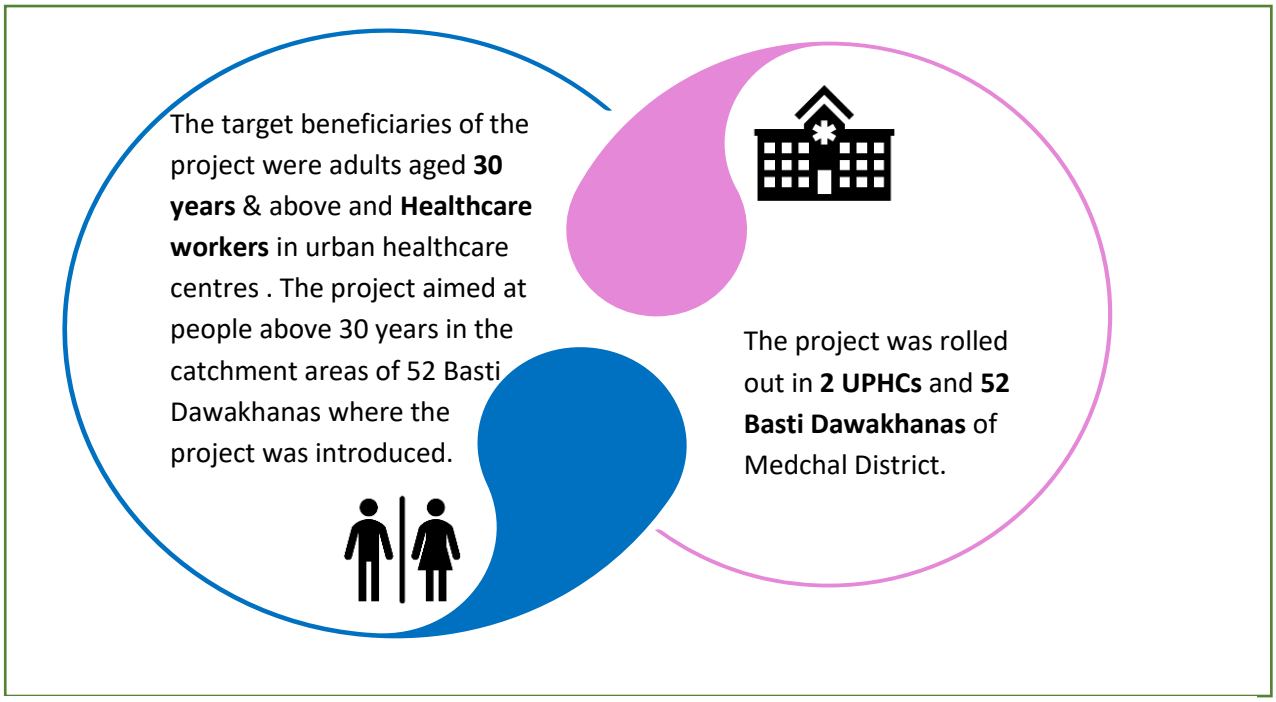

Figure 5 Project Intervention site and target audience

Partnership:

The program was implemented on the ground through collaboration with two primary entities: the National Health Mission and Department of Health and Family Welfare, Government of Telangana, whereas it was funded by Sanofi's CSR initiative.**Implementation Partner:**

1. NHM, DHFW, Government of Telangana:

The NHM was crucial in facilitating the program and strengthening the NCD service delivery at the facility and community levels. PPHF partnered with the existing resources, rolled out the project at government facilities, and strengthened the capacity of the existing human resources, keeping in mind the initiative's sustainability. All the activities were centered around the Basti Dawakhanas and UPHCs and supporting the human resources at these facilities.

2. Magna Carta Foundation:

The role of the Magna Carta was more oriented towards the selection, training, supervision and monitoring of the community mobilizers under leadership of PPHF Telangana and senior leadership team from PPHF. The memorandum of understanding was signed with PPHF

Magna Carta was assigned the following roles as per MOU:

- ✓ Engage 60 community mobilizers to implement project activities in Hyderabad.
- ✓ Participate in review meetings on a weekly and monthly basis.
- ✓ Develop a regular daily program update system.
- ✓ Submit monthly and quarterly utilization certificates of funds.

[1] Source: PPHF NCD Program Collaboration Report

- ✓ Listing of places posting, phone number and duty rosters of all mobilizers.
- ✓ Orientation training for all mobilizers.
- ✓ Undertake regular field visits to monitor the attendance of Community mobilizers.
- ✓ Assign a supervisor for every 20 mobilizers i.e., 3 supervisors within the mobilizers.

3. Sanofi:

This project was funded as a part or CSR initiatives of Sanofi, India. It was involved in evaluating the quality of deliverables.

Governance Structure of the Program

The PPHF established a core unit to support the implementation of the project activities on the ground. This included a state program officer, one monitoring and evaluation officer headed by a Senior Technical Advisor. The team of PPHF also was supported by one staff of Magna Carta Foundation and receive continuous support from district and state NCD cell for program implementation. The governance structure is depicted below:

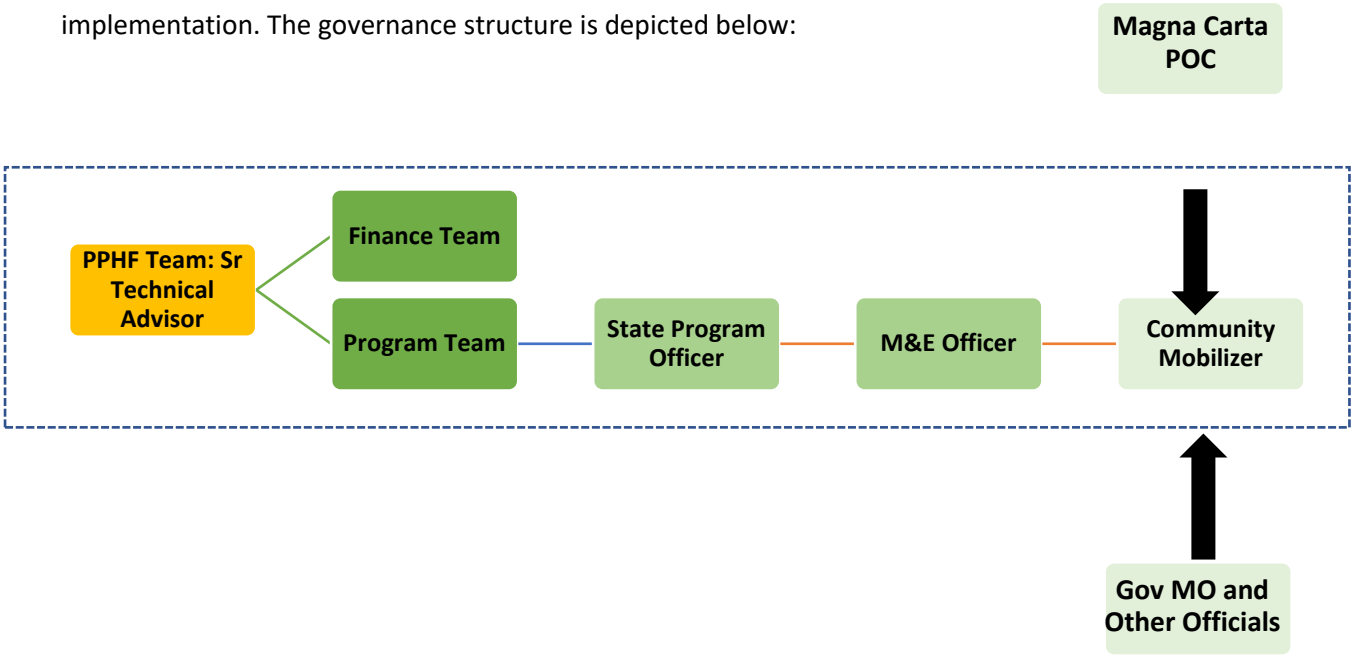

Figure 6 Governance Structure of the community mobilizer model

Funding of the Project

Sanofi funded the ASPIRE project for a period of 3 years. An MoU was signed between Sanofi and PPHF in the year 2021. The figure below indicates the expenditure pattern for the ASPIRE project for 2 years.

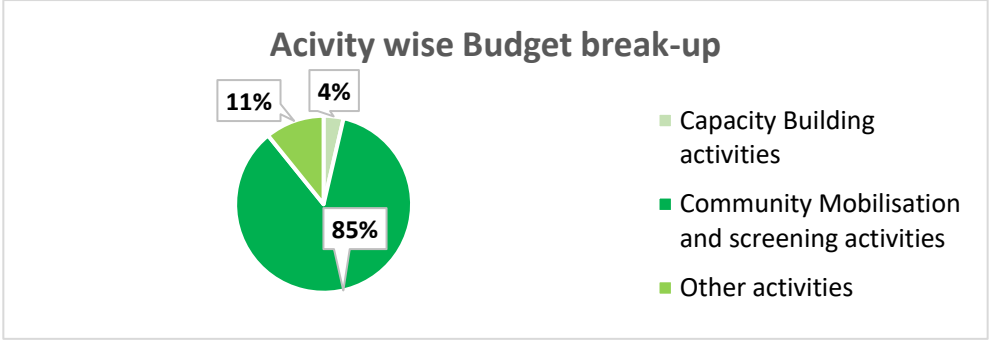

Figure 7Activity wise budget distribution

The total number of NCD screenings that were conducted during the project phase in the intervention site were 3,43,767 and if we compare it with the funds utilised against the mobilisation and screening activities, then it can be stated that an amount of INR 32.23 was spent per head to bring the members to the facility for undergoing NCD screening. However, this cost is exclusive to the activities and amount paid by the government under NPCDCS program to bring the members to get screened.

The number of screenings clearly demonstrates the success of this pilot project and highlights the positive impact that can be achieved with the introduction of dedicated health workers. Furthermore, it serves as a live example of a cost-effective initiative to bring about desirable outcomes in the challenging terrain of India, while ensuring sustainability with sufficient support from the state administration.

Concept of Community Mobilizers

Recruitment of Community Mobilizers:

The community mobilizers are envisioned to be involved in health promotion, timely referrals, and active follow-for care of NCD cases. Community mobilizers were selected with support from Magna Carta and the government officials at the respective BDKs. Local community members were preferred due to better rapport with the community which will help bridge the gap and enhance accessibility. These additional 60 human resources were introduced as a part of the ASPIRE project in Nov 2021 across 52 Basti Dawakhanas and 2 UPHCs.

The essential selection criteria to be a community mobilizer were:

- ✓ Community Mobilizer should be preferably a woman from the local area who has completed at least the tenth standard of education.
- ✓ S/he should be familiar with the local language.
- ✓ S/he should have a Mobile phone.
- ✓ S/he should be familiar with data entry in the App.

64 community mobilizers were identified and recruited, one at the BDK level and four at UPHCs. Each community mobilizer was paid an amount of INR 8000 every month for their service.

Roles and Responsibilities:

Roles and Responsibilities of Community Mobilizer:

1. S/he will mobilize the community for screening and help ASHA/ANM in the risk assessment of NCD
2. S/he will create community awareness regarding NCD and its risk factors.
3. S/he will act as a friend and guide to the NCD patients to access services at the facilities
4. S/he will ensure timely updating of all screening, diagnosis, and follow up patients records
5. S/he will help to link the patient information with the State Health Insurance scheme
6. S/he will participate in all the weekly meetings.
7. To collect data and relevant information about NCD patients.
8. Contribute to the strong unity of the team and synchronize actions at each site and location. Provide a daily report to Project Officer.
9. Carry out other activities when requested by the coordination.

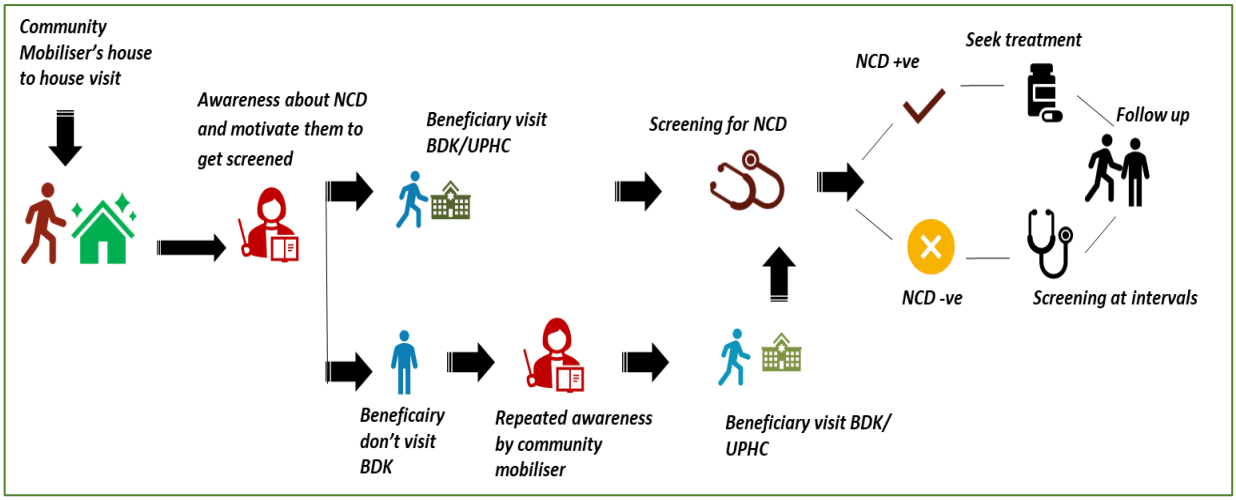

Figure 8 Depiction of activities of community mobilizer

Capacity Building of the community mobilizer

All the engaged Community Mobilizers underwent an orientation that gave a brief understanding of the nature of work and equipped them with the necessary skills. The National Program NCD modules were translated in Telugu and were used as training reference materials.

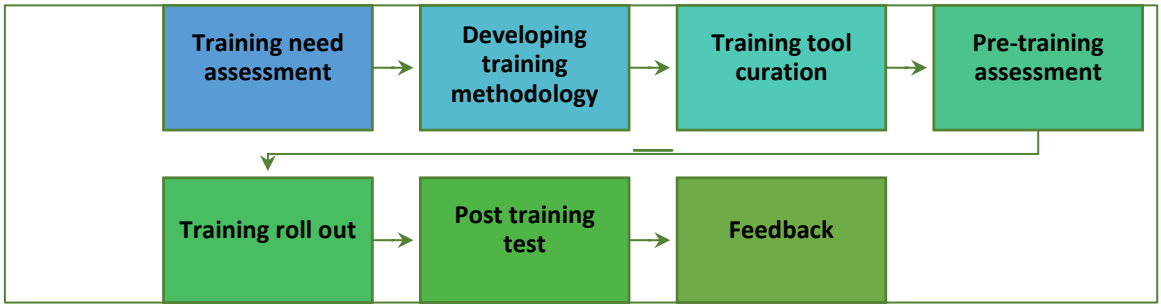

Figure 9Methodology of capacity building

Apart from this induction training, PPHF conducted monthly review meetings for these community mobilizers. Those sessions were also utilized for clearing doubts and providing hand-holding support to community mobilizers in areas of difficulty.

Trainer's profile: PPHF conducted the training with the help of a pool of medical experts/ academicians/ professionals working in NCD along with the state team lead of PPHF. The State Government nominated Master Trainers who could provide technical assistance during training.

Type of Training*:* Highly interactive physical and virtual training sessions incorporating hands-on learning with a demonstration of screenings using experience sharing and role plays. The sessions were focused on the NHM mandate and population-based NCD screening. The training provided an opportunity to discuss strategies for early identification and screening of the target population (men and women >30 years old), timely referrals to confirmation, and comprehensive management of the community's health conditions.

Monitoring and evaluation:

The community mobilizers were expected to report to the Medical Officer of the respective Basti Dawakhana and the Nodal officer from Magna Carta Foundation and PPHF. A dedicated M&E Specialist from PPHF used to monitor and evaluate the activities of these mobilizers and used to keep a tab on the performance of these members against their predefined targets. During the initial phase of the project, joint visits were undertaken by both PPHF and Magna Carta foundation to review the progress and understand the hiccups. Medical Officers, Staff nurses, and ANMs provided regular feedback to improve the project. A WhatsApp group acted as an immediate support platform wherever required. This platform was used to address queries and seek guidance from senior officials in case of any urgency.

Achievements of the model

At the community Level

1. **Increased NCD awareness:** The primary mandate of engaging community mobilizer is to increase awareness in the community related to NCDs and its risk factors. The repeated visits of the community mobilizers to households and informing them about the NCDs , its risk factors, signs and symptoms, importance of getting screened, availability of facilities nearby have definitely resulted in increased awareness of the community. All these interventions have been fruitful and were able to educate the masses on NCDs. Community mobilizer have acted as "catalysts" for the community to become more informed and sensitized about NCDs and the wide range of health facilities available at BDKs, including referrals and drug availability.

> *"It will be nice if the community mobilizers will be there because they are useful as publicity. Even though the BDK is there from 6 years, people were not coming. When volunteer started visiting regularly house to house, they started taking medicine from us who were taking in private."*
>
> *- Medical Officer, Bastidawakhana*

2. **Curbing misconceptions and myths:** The community mobilizers were efficient in curtailing hesitancy, especially among females, to convey their problems to the providers. These female volunteers build a rapport with the community members and helped them in opening about their problems ultimately helping them to adopt effective lifestyle and behavior. The community mobilizers were also effective in curbing misconceptions about the NCD risk factors, morbidities associated, lifestyle modifications, BDKs regarding affordability, availability, and accessibility of NCD services.

> *"Community mobilizers have helped in raising that awareness. The community members were not that aware about the seriousness of and prevalence of hypertension and diabetes but after community mobilizers motivated them to get checked through the proper counselling of health staff and medical officer. So now I could say after this program, the awareness and health literacy has increased, before this, it wasn't that much."*
>
> *- Official from PPHF*

3. **Health-seeking behaviour:**
   The utilisation of public health facilities over private facilities increased apart from the NCD screening. Since the same facility was available at the nearest health facility free of cost, the beneficiaries started using them. This can be an indicator of the quality of services provided by BDKs and more importantly the strong interface these Community mobilizers have made over the period of this project. They enable attendance of individuals for screening through motivation, reminders, and accompaniment (if required, particularly for non-compliant women) to undergo screening for breast or cervical cancer.

Health System Level

1. **Increased NCD Screening:** The statistics clearly show that the number of NCD screening after the intervention of the community mobilizers has significantly increased. The data from the state NCD portal showcases there is 74% increase in the number of screenings. The mobilisers were successful in bringing members to the facility and camps, ultimately facilitating 3,43,767 individual screenings in 2022.
   This has been achieved due to the dedicated efforts of the community mobilizers. The pre and post screening data of showcases that the involvement of community mobilizers was effective in bringing the desired change.

"If we try to implement this community mobilizer model, the reach to the patient will increase, and the out-of-pocket expenditure will be reduced from the individuals visiting private hospitals because we are providing free medicines."

-Medical officer, UPHC

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2. **Effective population enumeration:** Community Mobilizer is responsible for undertaking the Population Enumeration through home visits. She registers or lists all eligible adults in ASHA Disease Profile (ADP). The data before the intervention and after the intervention of the community mobilizers clearly showcase that there is significant rise in the number of beneficiaries registered under village health registry (VHR) and ASHA disease profile. The mobilizers also facilitated conducting 481 screening camps and completing 5,81,253 village health registries (VHR) and 3,47,191 ASHA disease profile (ADP), representing a 34% and 21% increase in VHR and ADP compared to the pre intervention period in the district in same period.

With the help of Community mobilizer this data was getting updated on a more regular basis therefore, this provided the health system a more realistic, real-time information to understand their potential caseload and also help to follow up with the patients to ensure care continuity.

3. **Increased utilisation of public health facilities:** The community mobilizers enhanced the reach of public health facilities by spreading awareness about the facilities available at the nearest

> *People have started coming to BDKs and they are taking our treatment regularly. It is also very helpful. Some of them or very lower middle class who go for Coolie work, it is benefitting to them, they are coming and taking medicine. Number of 30 plus people also increased for OPD."*
>
> *-Medical Officer, Basti Dawakhana*

facilities through their routine home visits. Thus, this mobilization resulted in people flowing into public health facilities in larger number for getting screened for NCDs. The footfall at these BDKs have drastically improved and the people visiting the private facilities for NCD services have reduced.

> *"Due to these mobilizers, there has been a change unlike before. There is 60 percent change because of them."*
>
> *-District Program Officer, Gov of Telangana*

4. **Better workforce management:**
In Medchal district, out of the 900 required numbers for ASHA, only 161 are filled, exerting a huge burden on the existing frontline staff, ultimately affecting the program's outreach activities. The additional dedicated NCD volunteers support the facility staff in many activities

> *"From provider perspective, when we talk about medical officers, their workload, got reduced, they can concentrate on diagnosis. They were actually helping a lot in the Bastidawakhanas. So, what I can say is, though few are graduates, but most of them are either intermediate or 10th, but what we have seen in them is they are quick learners, they were able to understand the process very, very well. And they were able to do this creating and upload the information without any difficulty."*
>
> *-Magna Carta*

about NPCDCS and PBS thus reducing the workload of medical officers, staff nurse and ANM, thereby enabling them to focus on their primary mandates. These community mobilizers also helped in organizing screening camps, manage patient flow in facility, support ANM and staff nurse.

Community Mobilizer Level

1. **Job Opportunity**

   The main reasons quoted by community mobilizers to opt for this job are the salary and passion for working; for most of them, this was their first job. They also mentioned that after working in this role, they gained a huge understanding of these diseases and their treatment options, about which they needed to be made aware before enrolling in this project. For most women, this was their first job, and they expressed great satisfaction with the nature of the work. Some even have enrolled for training courses such as ANM and GNM to enhance their skills and knowledge. So, this has opened the pathways for women's empowerment and their journey towards self-efficiency.

2. **Financial independence:**

   The overall profile has boosted their knowledge; sharpened skill sets in these women and supported them financially.

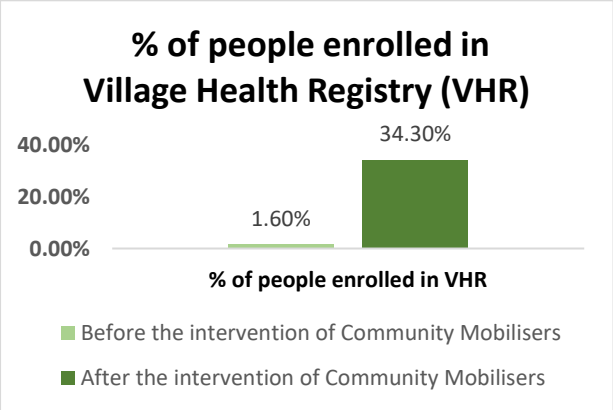
3. **Enhanced Knowledge:**

   The whole concept of community mobilizer was introduced to increase the access and strengthen the NCD delivery at the community level. To achieve this goal, women representatives were selected from the community and trained by the PPHF team. This training and their repeated interaction with the health system have significantly increased their NCD knowledge. The community mobilizers quote that after this job they were able to keep track of NCD cases at their house and were unaware of the seriousness of these conditions before joining this job.

4. **Work Satisfaction:**

   This job of serving the community and helping the needy have given them satisfaction thus motivating them to work. Few of them quote that this job has increased their respect in the community and they are also satisfied in rendering help to the needy.

Details of NCD screening



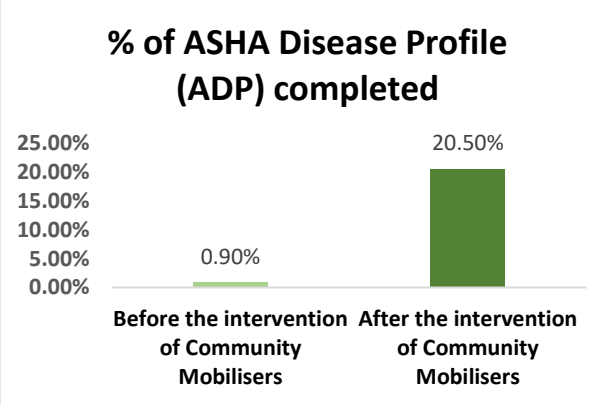


Figure 10Percentage of people enrolled in VHR and ADP before (Nov, 2021) and after the intervention of community mobilizers (Dec,2022)

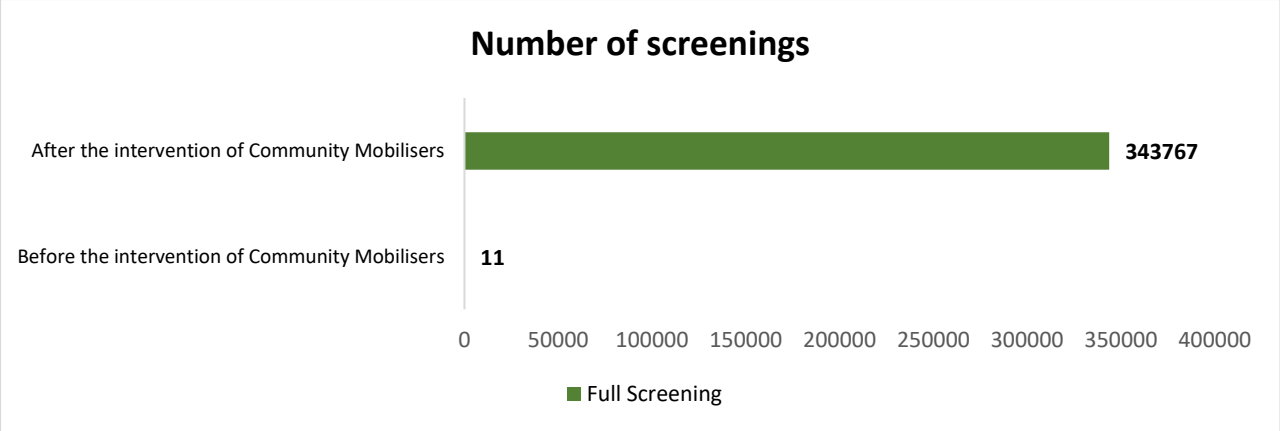


Figure 11Number and percentage of screening completed before (Nov, 2021) and after the intervention of community mobilizer (Dec, 2022)

Limitations and Challenges

1. **Duration of the project:**
   Consistent efforts over a significant period are necessary for any community-level intervention to induce behavioral change. Given the vast size of the target population aimed in this project, it was crucial to devote sufficient time towards effective management and referral of the cases as a next logical step to the process of NCD screening. Even in this smaller duration the project brought a significant positive impact in number of cases screened. Undoubtedly, a longer duration would have yielded much more fold results.
2. **Low community acceptance in initial phase:**
   Community mobilizers faced significant difficulties convincing people to undergo screening, often requiring multiple house visits, particularly in non-compliant cases. Initially, there was considerable reluctance among community members to provide their Aadhar card and other relevant information for enrolment in the village health registry. They faced challenges in approaching the community without identification cards or aprons/uniforms. These challenges posed a significant obstacle during the initial phase, consuming considerable time and effort on the part of the mobilizers and slowed the momentum temporarily. However, with repeated visits and dedicated efforts to build rapport with the community, the volunteers were eventually able to overcome this limitation to a great extent.
3. **Partner coordination:**
   During the project's initial phase, the involvement of multiple partners led to overlaps and gaps in certain areas, such as monitoring and evaluation. Initially, there were delays due to difficulties in recruitment and frequent dropouts among community mobilizers. The challenge was successfully addressed by PPHF, who appointed a dedicated project team to oversee the volunteers and collaborate with the Magna Carta Foundation.
4. **Capacity building:**
   The community mobilizers faced a few dropouts, with few trained members leaving the program and new recruits needing more formal training. Although the new members were briefed on their roles and responsibilities during review meetings, some volunteers missed the benefits of formal training. Additionally, the team encountered initial set of obstacles in organizing training sessions for the health workforce.

Despite these challenges, the PPHF team were able to bring in a significant change with the help of sustained effort and strong administrative role on the project.

Force field analysis

The 'force-field analysis' framework proposed by Kurt Lewin was adopted to understand the Community mobilizer model. This framework was applied to identify the factors facilitating and restraining the implementation of the different project activities. The steps involved in this were:

1. Draw the field 2. Assigning the score 3. Prioritising.

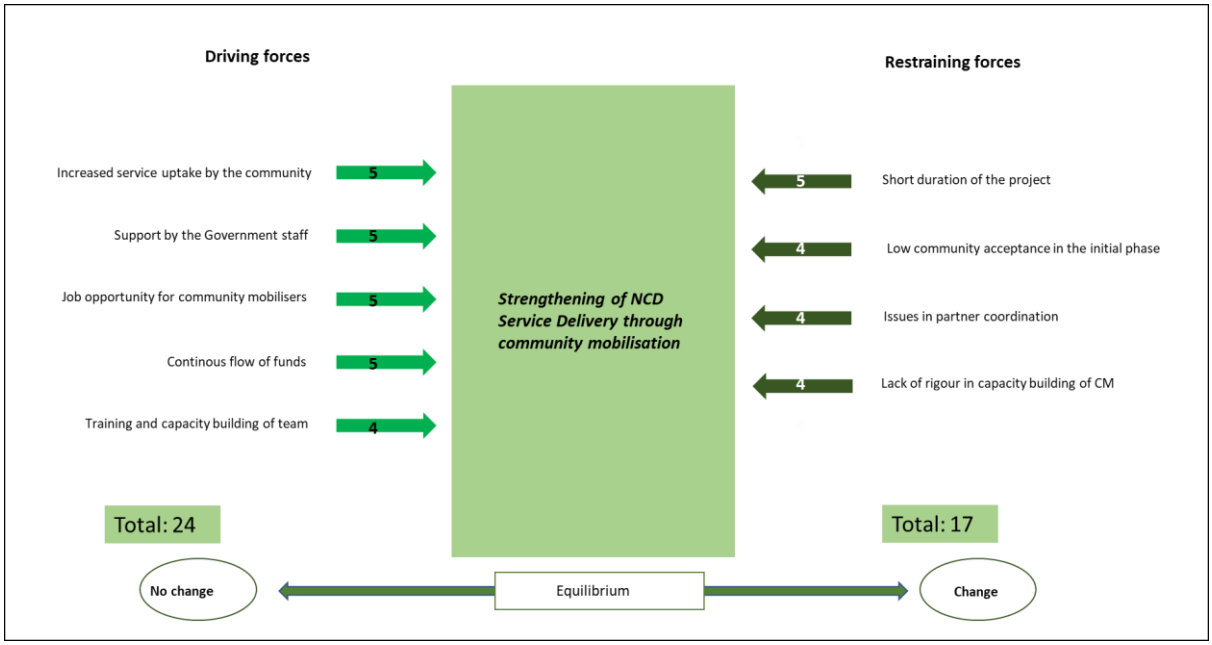


Figure 12Snapshot of force field analysis

The thematic areas from the primary data were categorised into driving forces and restraining forces, where driving forces were the enablers of the project and the restraining forces were the roadblocks of the intervention. The associated factors were scored on a scale of 1 to 5, where 1 indicated a 'weak effect' and 5 indicated a strong effect. For any project to attain the desired impact, the driving forces must be strengthened, and the resisting forces must be weakened through effective counter strategies. This tool is an effective approach in the context of change management and in this situation the introduction of a mobiliser was the intended change.

The drivers and restraining forces are depicted above with overall scoring towards positive side. The bend towards positive score indicates that there were huge enablers compared to the resisting forces. In this scenario, the decision should be towards the change i.e., towards the continuation of the mobilisers as the total forces for the change adds up to 24, whereas the forces against it is 17.

This framework provided a comprehensive picture of the facilitating and restricting factors as displayed in the figure above. In this model, the major driving forces were increased uptake of services, support rendered by the government, effective functioning of the PPHF team and work satisfaction among the mobilizers. The restraining forces during the initial phase were low acceptance at the community level and dropouts in terms of mobilizers which were effectively tackled by the PPHF team.

Discussion and Analysis

This evaluation highlighted the facilitators and barriers for the Urban community mobilizer model from the health systems, community and community mobilizer perspectives. The identified factors, whether originating from either perspective, were categorized as either driving forces that positively facilitated or restraining forces that hindered it. The continuous flow of funds, administrative support, capacity building of the BDK team, job opportunities were some of the facilitating factors. The sense of empowerment and financial independence were the motivating factors for community mobilizers.

However, some of the constraining factors identified were the short duration of the project, lack of coordination among partners on certain aspects, initial slow acceptance from the community members were some of the factors, which slowed or restricted the project implementation and is in concurrence with findings from other studies. These barriers point to challenges for standard implementation, which might explain why many initiatives failed to show satisfactory outputs.

Despite efforts made by the MOHFW and district authorities, there are challenges for effectively managing NCDs, more so in fragmented urban contexts. Telangana is one of the states with high burden of NCDs. This evaluation's primary objective is to understand this project in-depth, its implementation, and how these lessons can be incorporated to improve the NCD PBS. This evaluation comprehensively evaluates this urban community mobilizer model in Medchal Malkajgiri district. This highlights the importance of health promotion and how it still needs to be strengthened in current NCD PBS programs. Community workers' importance is non-negotiable in rural and urban contexts(Khetan *et al.*, 2017).

The stakeholders acknowledged that Community mobilizers are interested in being trained and upskilled to support the communities they serve. They also aspire for their role to be recognized by the health system. Community mobilizers are well accepted in the community they serve. All the stakeholders agreed to the contribution made by CM in NCD screening, and they have the potential and desire to further contribute in other thematic areas as well. Our findings align with the literature, highlighting the need for CHWs to play a fundamental role in improving healthcare awareness, and mobilizing the population. Previous studies have demonstrated that trained and supervised CHWs can effectively screen individuals at high risk of NCDs, and promote healthy lifestyles. The sustainability component of the project always visualizes this initiative towards strengthening the community aspects of the NCD in the urban context in the form of ASHAs. The government is also interested in similar initiative and based on the good learning coming through this model and in conversation from PPHF, the government of Telangana has recently announced to engage 974 ASHAs.

As number of health programs is increasing, the workload of these CHWs is also increasing, there will be a debate raised whether to increase the number of CHWs or to have a separate NCD-specific CHW. However, the case studies like this and similar literature puts across sufficient evidence about the benefits these dedicated CHWs bring around in NCD Screening. India is currently undergoing a transition from selective to comprehensive primary health care. Therefore, it is an ideal phase to think through the initiatives that need to be taken care of to strengthen community-strengthening efforts, such as the number of CHWs required for their training, workforce coordination, etc. A proper and clear strategy around this would ensure continuity of care till the last mile.

Recommendations

The sustained effort of the project has brought a change and increased the community members' awareness. The model has curbed myths and misconceptions about the facilities available at the Basti Dawakhanas. These mobilizers can further reinforce the aim of strengthening NCD service delivery with their assistance. Following are some of the recommendations both at the project and health system levels:

Community Mobilizer model

Design phase

- The training and capacity building of Community Mobilizers should be more rigorous by placing it in a modular pattern to ensure quality service delivery.
- The formulation of the Community Mobilizers mentoring group could have been helpful to provide on job handholding and supportive supervision.

Implementation phase

- Monitoring and evaluation could have been more robust, particularly in terms of data availability and analysis at the primary intervention point, i.e., BDKs
- Coordination among the stakeholders could be more actively persuaded throughout the project duration through clear communication.
- IEC could have involved undertaking educational sessions apart from Inter-Personal Communications targeting different groups
- Other critical urban stakeholders should be involved, such as ULBs

Health system

- Community Mobilizers should be engaged as “ASHA” in the health system to ensure the continuity of the efforts placed in this district through collective efforts.
- The health department could consider a separate cadre for addressing the need for NCDs awareness and mobilization, specifically in urban areas.
- Health promotion and awareness are crucial elements, particularly in NCD; a similar kind of focused approach should be adopted by district authorities to address the current myth and misinformation and encourage individuals to get screened and adhere to their treatment.
- Data availability, quality, and appropriateness are still not up to the mark, which needs to be looked at, and then we can comment on project appropriateness at the BDK level.

This intervention has emerged as a potential approach for mobilizing the population to get screened for NCDs. These interventions, which may be customized to the particular requirements of the community, rely on a strong interface between the health system and community members to provide health education, screenings, and referrals. Community mobilizers, a community health worker have the potential to enhance health outcomes, lower healthcare costs, and advance sustainable development by empowering communities and increasing their capacity to prevent and manage NCDs. To facilitate access to screening and treatment services, these activities promote healthy lifestyles, raise knowledge of NCDs and risk factors. The PPHF's community mobilizer intervention has been impactful in reaching urban and vulnerable communities, enhancing health outcomes, and lowering health disparities. The accomplishment of these interventions highlights the significance of

community empowerment and engagement in tackling NCDs and reaching the objective of Universal Health Coverage in India.

Annexure

Study Tools
Consent Form
GOT Letter

References

- Ainapure, K., Sumit, K. and Pattanshetty, S.M. (2018) 'A study on implementation of national programme for prevention and control of cancer, diabetes, cardiovascular diseases and stroke in Udupi district, Karnataka', *International Journal Of Community Medicine And Public Health*, 5(6), pp. 2384–2387. Available at: https://doi.org/10.18203/2394-6040.ijcmph20182163.
- Bobdey, S. *et al.* (2016) 'Burden of cervical cancer and role of screening in India', *Indian J Med Paediatr Oncol*, 37(4), pp. 278–285. Available at: https://doi.org/10.4103/0971-5851.195751.
- Dandona, L., Dandona, R., Kumar, G Anil, *et al.* (2017) 'Nations within a nation: variations in epidemiological transition across the states of India, 1990–2016 in the Global Burden of Disease Study', *The Lancet*, 390(10111), pp. 2437–2460. Available at: https://doi.org/10.1016/S0140-6736(17)32804-0.
- Dandona, L., Dandona, R., Kumar, G. Anil, *et al.* (2017) 'Nations within a nation: variations in epidemiological transition across the states of India, 1990–2016 in the Global Burden of Disease Study', *The Lancet*, 390(10111), pp. 2437–2460. Available at: https://doi.org/10.1016/S0140-6736(17)32804-0.
- Jaacks, L.M. *et al.* (2022) 'A Community-Based Noncommunicable Disease Prevention Intervention in Punjab, India: Baseline Characteristics of 11,322 Adults', *Indian J Community Med*, 47(1), pp. 23–29. Available at: https://doi.org/10.4103/ijcm.ijcm_672_21.
- Jayanna, K. *et al.* (2019) 'Designing a comprehensive Non-Communicable Diseases (NCD) programme for hypertension and diabetes at primary health care level: evidence and experience from urban Karnataka, South India', *BMC Public Health*, 19(1), p. 409. Available at: https://doi.org/10.1186/s12889-019-6735-z.
- Khetan, A.K. *et al.* (2017) 'The Effectiveness of Community Health Workers for CVD Prevention in LMIC', *Glob Heart*, 12(3), pp. 233-243.e6. Available at: https://doi.org/10.1016/j.gheart.2016.07.001.
- Krishnan, A. *et al.* (2021) 'Preparedness of primary and secondary health facilities in India to address major noncommunicable diseases: results of a National Noncommunicable Disease Monitoring Survey (NNMS)', *BMC Health Services Research*, 21. Available at: https://doi.org/10.1186/s12913-021-06530-0.
- 'Medchal-Malkajgiri.pdf' (no date). Available at: http://rchiips.org/nfhs/NFHS-5_FCTS/TG/Medchal-Malkajgiri.pdf (Accessed: 14 April 2023).
- 'Operational Guidelines of NPCDCS (Revised - 2013-17)_1.pdf'. Available at: https://main.mohfw.gov.in/sites/default/files/Operational%20Guidelines%20of%20NPCDCS%20%28Revised%20-%202013-17%29_1.pdf (Accessed: 14 April 2023).
- Raina, S.K. (2016) 'From NHM to NPCDCS: Epidemiological Transition and Need for a National Program for Diabetes in India', *Journal of Metabolic Syndrome*, 05(02). Available at: https://doi.org/10.4172/2167-0943.1000204.

- 'Telangana NFHS-5 Factsheet.pdf'. Available at: https://www.im4change.org/docs/Telangana%20NFHS-5%20Factsheet.pdf (Accessed: 14 April 2023).
- Thumoju, S. *et al.* (2018) 'Experiences from Cervical Cancer Screening Program Conducted at Low-Resource Areas in Telangana', *IJMEDPH*, 8(3), pp. 112–115. Available at: https://doi.org/10.5530/ijmedph.2018.3.24.
- Vos, T. *et al.* (2020) 'Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019', *The Lancet*, 396(10258), pp. 1204–1222. Available at: https://doi.org/10.1016/S0140-6736(20)30925-9.