

CASE STUDY FROM MEWAT DISTRICT, HARYANA, INDIA

Community Health Worker- Led Intervention for Vaccine Information and Confidence



The pilot project was conducted in India's Mewat District between January 2021 – December 2021. It was implemented through a partnership between the Johns Hopkins Maternal and Child Health Center India and Bal Umang Drishya Sanstha (BUDS), with funding from the Sabin Vaccine Institute. The project received ethics approval from The Office of the Institutional Review Board (IRB) The Ethics Committee (IRB) of BUDS.

KEY TAKEAWAYS

- Support non-traditional leadership, such as Community Accountability Boards and faith-based leaders, to facilitate change and ownership over health promotion as a sustainable method
- Effective health communication strategies are targeted health promotional videos and simple pamphlets with local community influencers shareable via digital platforms (e.g.: WhatsApp)
- Improve lines of communication and coordination between community health workers and the health care providers who provide vaccinations

APPROACH

Community members from the rural village of Ghasera in the Mewat District, India, co-developed and co-developed and implement a four-step intervention to motivate vaccine acceptance and uptake of routine childhood and COVID-19 vaccination, as follows:

- Develop a Community Accountability Board (CAB) comprised of identified community influencers
- Conduct human-centered design (HCD) workshops with both community health workers (CHWs) and CAB members to establish a multi-level understanding of the barriers faced in accessing vaccines, and implement a baseline survey with caregivers of children to assess their knowledge, attitudes and practices (KAP) around vaccines
- Co-design, implement and evaluate an intervention pathway with CHWs and CAB members
- Ensure long-term sustainability through monthly CAB meetings

The intervention included several components, including endorsements from religious leaders, pamphlets and videos of local vaccine champions, targeted training for CHWs, walkthrough interpersonal communication exercises, and improved coordination between cadres of CHWs. Findings from pre- and post-intervention KAP survey analysis and qualitative in-depth interviews with CHWs and CAB members suggested there were improvements in caregivers' vaccine KAP and that intervention was impactful for CHWs and CAB members. Community health workers shared feelings of ownership over vaccine uptake, and both CHWs and CAB member discussed their empowerment to address broader health issues. Understanding this intervention in the context of Mewat can provide a prototype of how this co-design method of interventions could be implemented in similar settings.

IMPLEMENTATION STAGES

1. Development of a CAB

Influential community members (i.e.; religious leaders, teachers, sarpanches, senior CHWs, and village elders) were identified through local knowledge of the community, recruited to participate, and interviewed to assess their interest and commitment as a CAB member. All potential members were interviewed and asked questions about their perceptions of vaccines, their role in the community, how long they have been involved in their role in Ghasera. Participants were then selected based on a combination of high influence, commitment to the project, and willingness to advocate for vaccines. This project identified 10 CAB members, comprised of teachers, city council (panchayat) members, social workers, community mobilizers, senior CHWs, religious leaders, and local medical officers.



Figure 1: Maulana (religious leader) and CAB member advocating for vaccination in a short video of well-respected community members.

2. Preliminary Data Collection and Human-Centered Design Workshops

Table 1 - Findings from the baseline data collection

Caregivers	CHWs	CHWs & CAB members
<p>Felt CHWs provided valuable access and information regarding vaccines, while poor interactions with CHWs resulted in negative perceptions of impact on the community</p> <p>Had perceptions that CHWs do not properly listen to, or properly address, concerns; and/or do not react in ways that allow caregivers to discuss concerns</p> <p>Were concerned about side effects of vaccines</p> <p>Trusted religious leaders based on perceptions of them having their best interests at heart</p> <p>Viewed COVID-19 as a 'city problem' or a 'disease of western countries'</p>	<p>Did not feel well-trained to address community concerns on vaccination records or side effects</p> <p>Did not perceive the same level of ownership or impact on vaccine acceptance within the community</p> <p>Felt Auxiliary Nurse-Midwives are not typically able to provide them with enough notice to inform caregivers of vaccination appointments and patiently address their questions and concerns, leaving the caregivers feeling rushed</p>	<p>Identified communication barriers due to lack of training, creating, a) a lack of coordination on vaccination guidance between CHWs and CHW supervisors (Accredited Social Health Activists), b) less optimal knowledge shared by CHWs to caregivers</p> <p>Shared concrete examples of known individuals benefiting from vaccination would be more impactful</p> <p>Felt that religious leaders were the most trusted and valued community members as perceived by the community</p> <p>Believed community members would refuse COVID-19 vaccines due to perceptions that COVID-19 is not in Mewat</p>

The baseline KAP surveys provided an understanding of vaccination barriers, motivation, misinformation, myths, and community rumors among caregivers of children. The human-centered design workshops amongst CHWs and CAB members allowed for the design of intervention based on the insights of the community. Insights from the baseline data collection can be seen within Table 1.

3. Implement the Intervention as Based on Insights Gained

Interventions to address the most prominent rumors, misconceptions, and barriers was created and subsequently refined through two, online HCD workshops conducted with the CHWs and CAB members. Priority interventions included:

- **Engagement of religious leaders in workshops/trainings** to address concerns and gain their trust and involvement in informational campaigns
- **Development and distribution of pamphlets with and videos** via WhatsApp of influential community leaders (e.g.; religious leaders and elders) as vaccine champions advocating for routine childhood immunization and COVID-19 vaccination and sharing personal experiences to ease common concerns (see Figures 1 and 2)
- **Enhanced and targeted communication training for CHWs**, which included practical interpersonal mock scenarios to address common vaccine-related misconceptions and fears (e.g.; side effects)
- **Conduct walkthrough, reflective listening exercises to enable CHWs to communicate more effectively** and empathetically with caregivers, as guided by materials from Johns Hopkins Center for Communication Programs (see Figure 3)
- **Improved coordination between CHWs and supervisors** regarding information sharing and vaccination schedules

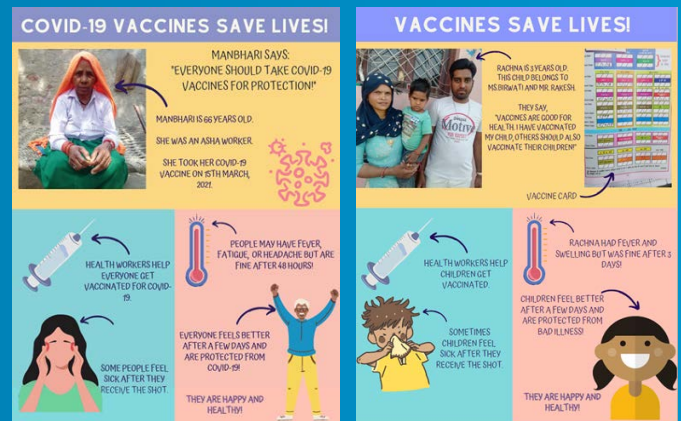


Figure 2: Pamphlets to motivate vaccine uptake by addressing the most frequently discussed fear of routine vaccines (side effects).





4. Evaluation of the Intervention and CAB Sustainability

The post-intervention caregiver KAP survey and interviews with CHWs and CAB members observed several improvements within the community, as follows:

Caregivers' perceptions	CHW's perceptions
<p>Improvements in community knowledge of vaccination side effects and benefits of vaccination</p> <p>Caregivers welcomed the involvement of fathers and community leaders in vaccination</p> <p>CHWs are perceived as being more present and active in the community</p> <p>Caregivers were more personally involved in obtaining vaccines, willing to travel long distances; and there were fewer suggested reasons to refuse vaccination</p>	<p>Physical items (videos and pamphlets) were most helpful for communication with caregivers</p> <p>Communication training was a helpful method of training</p> <p>Links with community leaders were improved, which provided support towards reaching hesitant caregivers</p> <p>Improvements in both routine immunization services and COVID-19 vaccination due to various communication, coordination, and strengthened connections</p> <p>Increased confidence due to broad skill development allowing for the use of online platforms, discussion of issue with caregivers, and improved relationships with caregivers by leveraging the CAB</p> <p>Increased ownership and empowerment to apply skills to facilitate change</p>

Throughout the study intervention period, the CAB met monthly to review CHW services, identify problems, talk about solutions, and help CHWs improve their rapport in the community. As an indicator of sustainability, the CAB found significant value in their work and expressed the desire to continue meeting to facilitate positive impact in Mewat regarding other key community priorities: preventing child marriage, improving education for girls, and more autonomy for women.

Figure 3: Interpersonal Communication for Immunization Training

<p>Two-Way Dialogue </p> <p>Good IPC is when both people speak and listen to the other without interrupting, ask questions and share information</p>	<p>Atmosphere of Caring </p> <p>Listen carefully, making eye contact, asking good questions, and being understanding will make caregivers feel important and show them that you really care about them.</p>	<p>Encourage Dialogue </p> <p>Asking caregivers open questions will encourage them to share concerns.</p> <p>Once caregivers describe the situation, you might have a better idea of how to best help them.</p>	<p>Present Information </p> <p>Share information in a way that the caregivers can easily understand.</p> <p>It may be good to use pictures when possible</p>
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INFORMING COMMUNITY ACTION

Policy

- Acknowledge, articulate, and address the values that community members hold
- Invest resources for community members to co-create viable solutions and trust their ability to do so
- Support non-traditional leadership (CAB) to facilitate change and ownership over health promotion as a sustainable method

Program

- Faith leaders: Earn their trust, empower them with knowledge on vaccine benefits and as vaccine champions
- Conduct a robust communication campaign of the COVID-19 vaccine prior to vaccination days
- Engage with CHWs and community members to understand the specific type of impactful information and ways it should be communicated. Suggestions of communication strategies are using targeted health promotional videos and simple pamphlets with local community influencers shareable via digital platforms (e.g.: WhatsApp)

Practice

- Improve lines of communication and coordination between CHWs and health care providers who provide vaccinations
- Communicate health information in local dialects and in less technical terms that people understand
- Empower CHWs to address vaccine adverse events and vaccine-related queries from communities

RESEARCH LEADS



Baldeep Dhaliwal, MSPH

John Hopkins Bloomberg School of Public Health

Baldeep K. Dhaliwal (she/her) is in the doctoral program at Johns Hopkins Bloomberg School of Public Health in the Department of International Health, Social and Behavioral Interventions. She previously worked as a Research Associate II at the International Vaccine Access Center. Baldeep's work has focused on understanding multi-level perceptions that impact vaccine-seeking behavior, while working with communities to co-create grassroots-level interventions to improve vaccine uptake



Rajeev Seth, MD, MBBS

Bal Umang Drishya Sanstha (BUDS)

Dr Rajeev Seth is a U.S.-trained, American Board Certified Social Pediatrician with expertise in the delivery of mobile health, access to vaccinations and welfare for underprivileged children and young people in low resource community settings. As co-founder of a non-profit organization BUDS, Dr Seth's work has reached out to serve the child health, vaccinations, nutrition and rehabilitation needs of more than 81,000 marginalized children in Delhi and rural villages in the backward district of Mewat, India since 2003.



Anita Shet, MD, MBBS, PhD

Johns Hopkins Bloomberg School of Public Health

Anita Shet is a pediatric infectious diseases specialist with broad interests in childhood infections in low and middle-income countries with a specific focus on vaccine-preventable infections. Her research also explores the link between timely immunization and cognitive outcomes in children. She currently serves on the Council of the International Congress of Infectious Diseases, and is member of the Dengue Vaccines Advisory Committee on Immunization Practices (ACIP) Workgroup. She also serves on the NIH Candidate Vaccine Advisory Committee and the Steering Group on Epidemiological Preparation for Vaccine Trials established by the Indo-US Vaccine Action Program to provide guidance on epidemiological and vaccine studies for dengue and chikungunya control in India.