

Promoting Supplement Adherence Through Community Health Research Worker's Communication: A Qualitative Investigation from JiVitA Bangladesh

Atiya Rahman

Humanitarian Hub

BRAC James P Grant School of Public Health, BRAC University

Background

- Maternal undernutrition (low BMI and micronutrient deficiencies) is strongly associated with increased risk of LBW, intrauterine growth restriction (IUGR), and neonatal mortality (Black, 2013)
- Maternal nutrition supplements (IFA, MMS) during pregnancy reduce low birth weight and support better fetal growth (Keats et al 2021)
- Antenatal fortified Balanced Energy Protein (BEP) supplements help address maternal undernutrition and reduce low birth weight (weight < 2.5 kg) (WHO, 2016; Haider & Bhutta 2017)
- Low adherence to maternal nutrition supplements remains a global challenge affecting maternal and newborn health (WHO, 2020)

Background

- Community Health Workers (CHW) are vital frontline workers who improve adherence through counseling, trust-building, and follow-up^(Shangvi, 2021)
- CHWs support adherence by providing home-based counseling, correcting misinformation, and addressing barriers like low literacy, norms, and limited access^(Bhutta et al 2013; Shafiq et al 2019)
- In Bangladesh, CHW-led nutrition and ANC programmes increase supplement use, early pregnancy detection, and health-seeking behaviour^(NNS, 2022)
- In Bangladesh, JiVitA's CHRWs act as a vital bridge between the research programme and the community, improving supplement adherence

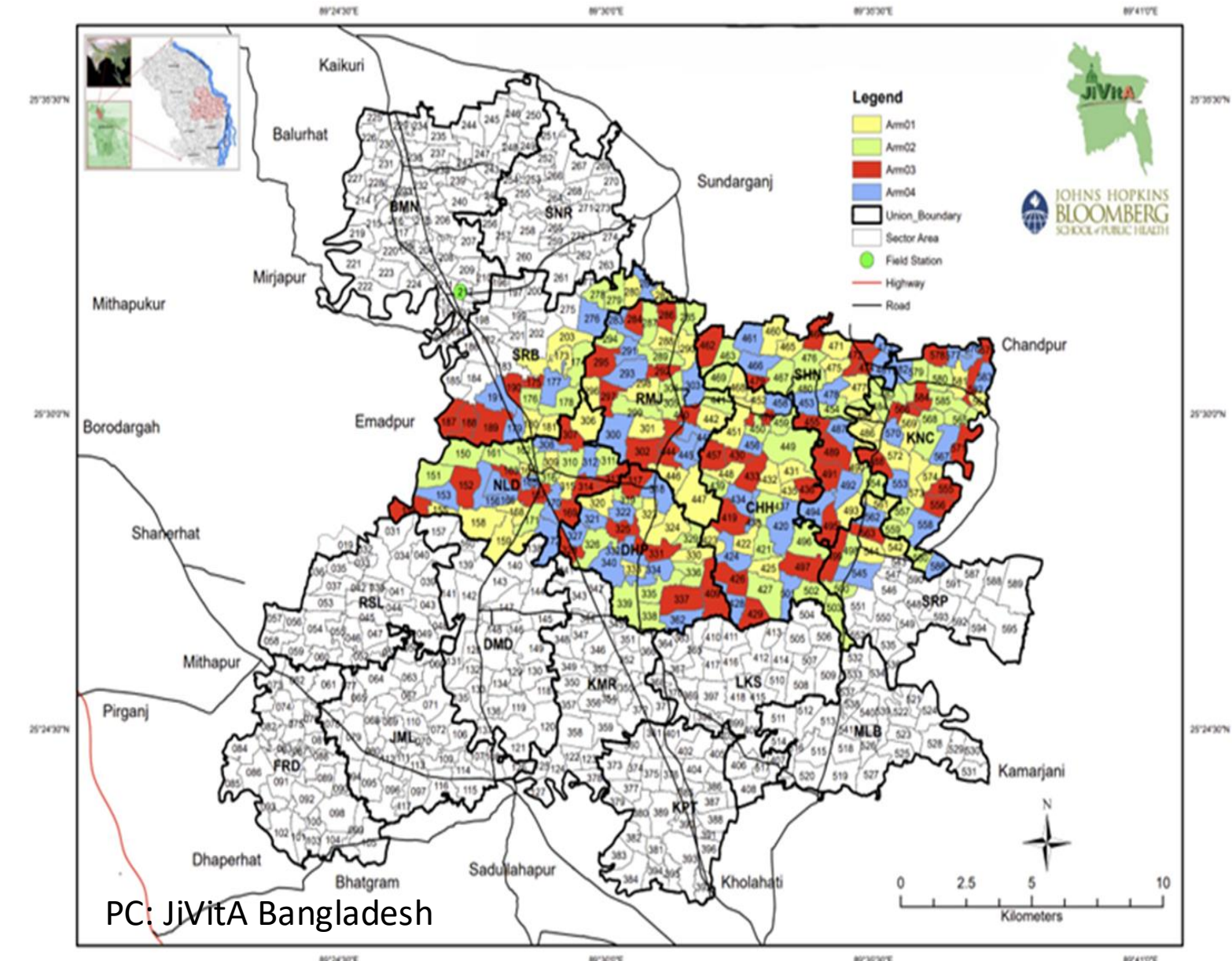
Objective

To explores how CHRWs' interpersonal communication influences Balanced Energy Protein (BEP) supplement adherence during pregnancy in the context of an effectiveness trial



JiVitA Bangladesh

- Large maternal & child health and nutrition research project of Johns Hopkins Bloomberg School of Public Health
- Based in Gaibandha, Rangpur Division, operating since 1998
- Conducts major community-based trials on:
 - Antenatal multiple micronutrient supplementation (MMS)
 - Vitamin A in pregnancy and newborns
 - Balanced energy-protein and dose-response (MNDR) studies



CHRWs in JiVitA Bangladesh

- Locally recruited
- High-school degrees or more
- Responsible for a defined sector of about 250 households
- Conduct pregnancy surveillance through routine home visits
- Deliver supplements (BEP and MMS) during home visits, provide counselling, tracked adherence, newborn dosing, and support maternal-child health care



Methods

- This qualitative sub-study, nested within the TARGET-BEP trial (N=2120, pregnant women)
- Data were collected during the final 6 months of the 2.5-year TARGET-BEP trial
 - Twenty-four in-depth interviews (IDIs) with women who had received BEP supplements as part of the trial
 - Six FGDs with 39 CHRWs worked with JiVitA Bangladesh
 - Thirteen group interviews with husbands and mothers-in-law from IDI's group
- Thematic analysis



Results

Used door-steps, repetition, follow-up visits, and visual aids

Provided accurate, clear information on pregnancy supplements

Built trust through empathetic, respectful engagement

Tailored messages to each woman's context and needs

Involved family members (children, husbands and mothers-in-law)

CHRW's Key Contributions Lead to Supplement Adherence

Used door-steps, repetition, follow-up visits, and visual aids

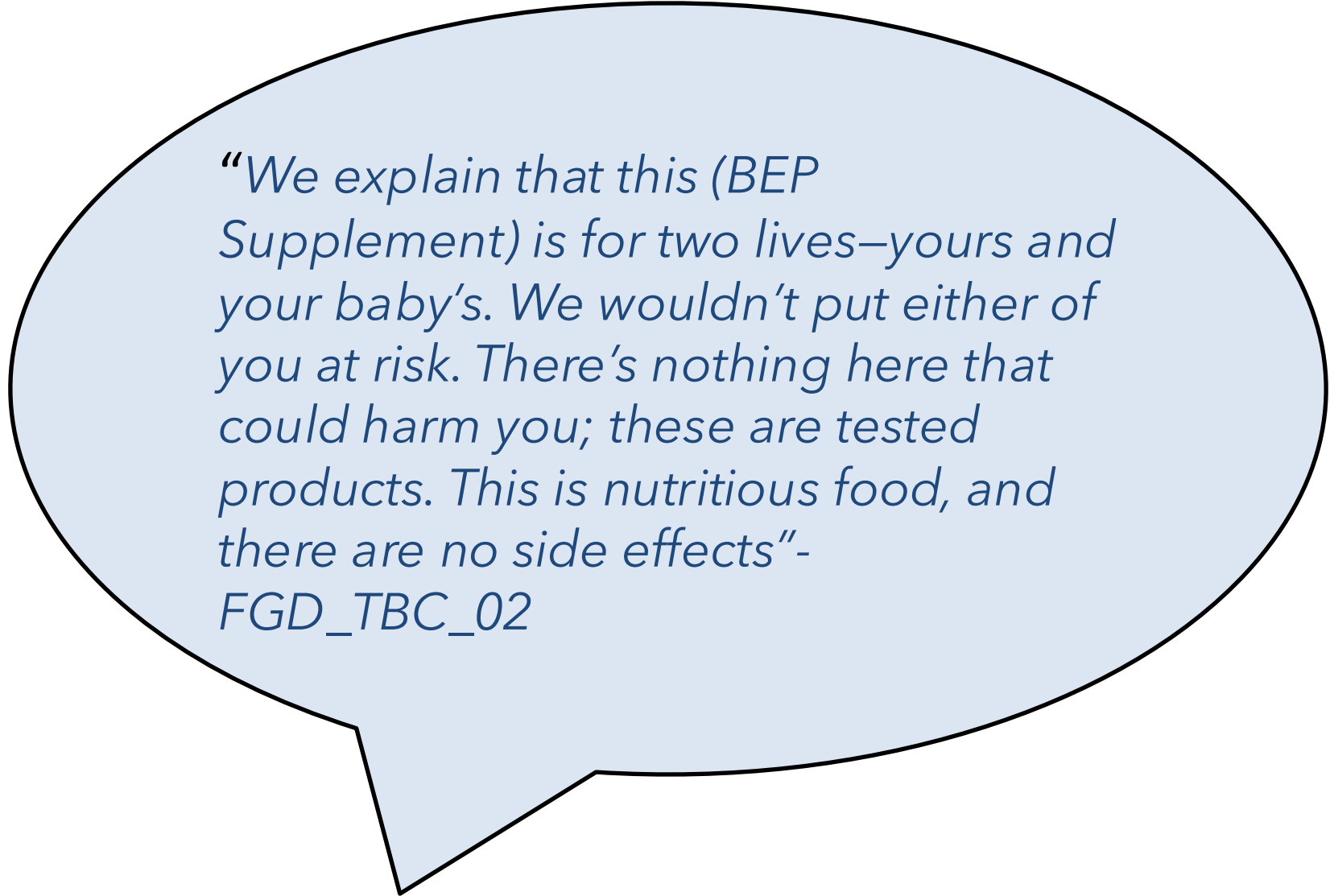


PC: JiVitA Bangladesh

- Delivered supplements directly to women's homes, improving convenience and access which is accepted and appreciated by the women and family members
- Provided timely clarification of concerns, reducing confusion and misinformation
- Repeated reminders and follow-up visits encouraged consistent supplement use
- Multiple visual aids provided by CHRWs and simple explanations helped women remember and adhere

Provided accurate, clear information on pregnancy supplements

- CHRWs provided timely clarification of concerns, reducing confusion and misinformation
- Women reported improved understanding of supplement use and benefits
- Women felt supported, motivated, and reassured
- Greater confidence in using pregnancy supplements consistently



“We explain that this (BEP Supplement) is for two lives—yours and your baby’s. We wouldn’t put either of you at risk. There’s nothing here that could harm you; these are tested products. This is nutritious food, and there are no side effects”- FGD_TBC_02

Built trust through empathetic, respectful engagement

- Provided respectful, non-judgmental guidance that helped women feel safe to share sensitive challenges

- Built trust by supporting women discreetly and protecting their privacy in family or community-restricted environments

- Demonstrated empathy by listening to women's concerns and addressing their fears with patience and clarity

- Provided gentle encouragements to pregnant women to ensure adherence

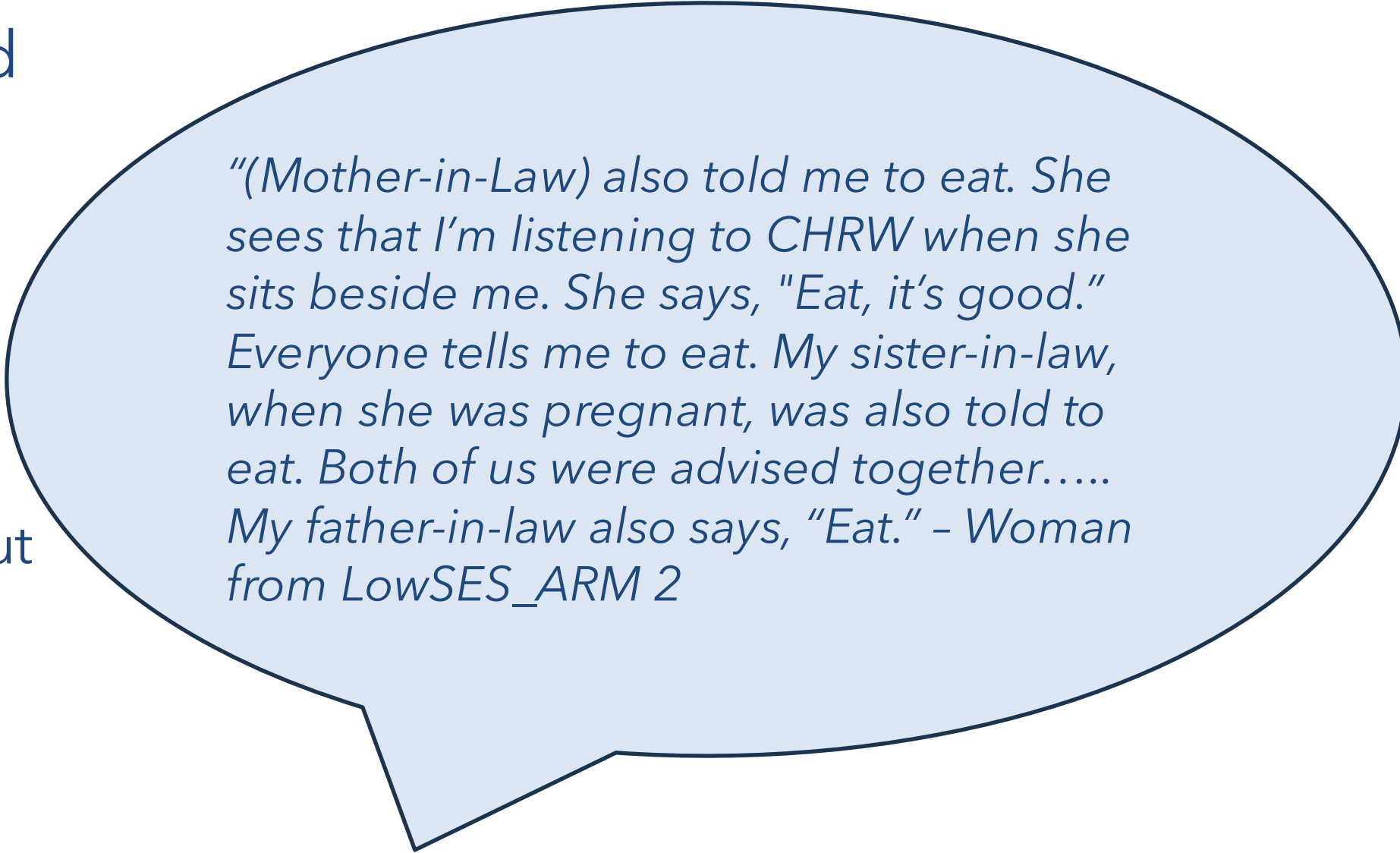
Tailored messages to each woman's context and needs

- Provided individualized guidance based on each woman's comfort, preferences, and challenges with taking supplements
- Offered practical, alternative methods of consumption to ensure women could still benefit even if they disliked the taste or texture

"We've advised them in various ways, however they could manage to take it.... For example, one woman said, "Eating the Pushti' packets by licking them repeatedly makes my mouth feel strange. The sweetness overwhelms the mouth, and the appetite goes away. At that point, I advised her, "If you dissolve it in warm water and drink it, it will still be effective. You can also mix it with warm milk and drink it—it will work that way too." (Participant 2, FGD_TBC_08)

Involved influential family members (husbands, mothers-in-law)

- Family members trusted the supplement once CHRWs explained it, which encouraged women's adherence
 - They provided moral and emotional support during pregnancy
 - They were not heavily involved in the process, but their positive reinforcement helped women continue taking the supplements



"(Mother-in-Law) also told me to eat. She sees that I'm listening to CHRW when she sits beside me. She says, "Eat, it's good." Everyone tells me to eat. My sister-in-law, when she was pregnant, was also told to eat. Both of us were advised together..... My father-in-law also says, "Eat." - Woman from LowSES_ARM 2

Challenges



- Neighbour's discouragement
- Disapproval from the informal provider
- Transportation difficulties

Implications for Scaling and Policy

- CHRWs build trust, deliver accurate maternal nutrition messages, and help women follow supplement guidance while avoiding misinformation
- Well-trained and adequately remunerated CHRWs like those of JiVitA can provide quality counselling and support to pregnant women
- Stronger CHRW training and supervision improve counselling quality and maternal nutrition outcomes
- Scaling requires coordinated Government-NGO partnerships and integration of CHRW communication into ANC services
- These insights guide Bangladesh's national rollout of MMS and other supplements, highlighting CHRWs' crucial implementation role

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Thank you

