**Equinam – Phase B Equity impact of women’ group interventions**

1. Why were improvements in behaviour similar among low and high socio economic status groups?
2. To what extent do: community capacity and social support, dissemination and spread of ideas, access to resources (in particular Clean Delivery Kits), and acceptability of the home care practices explain the impact of the women’s groups?

**METHODS**

**Contexts**

We collected data from four trial sites, in Bangladesh, India, Nepal, and Malawi, where neonatal mortality rates were relatively high. All the sites were rural, with populations mainly engaged in subsistence agriculture. In Bangladesh, research was conducted in Faridpur, Bogra, and Moulvibazaar districts, with a population of 532,996 {Fottrell, 2013 #606}. In India, it was conducted in a population of 228,186 in Jharkhand and Orissa, two of India’s poorest states, with large tribal populations {Tripathy, 2010 #401}. In Nepal, research was conducted in the hilly district of Makwanpur, south of the capital Kathmandu {Manandhar, 2004 #64}, in a population of ~420,500. In Malawi, it was conducted in Mchinji district in the central region, which had a population of ~455,000{Lewycka, 2013 #777}.

The women’s group interventions were similar in that they all used PLA cycles. The participatory nature of the intervention meant that it could respond to local issues and groups could implement locally relevant and feasible strategies. These included making and selling clean home delivery kits, raising funds through regular collection or other activities, awareness-raising activities, home visits to pregnant women and their families, and interactions with health facilities to improve maternal and newborn services {Rosato, 2012 #776}{Rath, 2010 #464}{Morrison, 2010 #404}.

**Study design**

We based our design on quantitative findings on the equity impact of the intervention (Houweling submitted) and on the trials’ process evaluation research on how behaviour change was stimulated {Rosato, 2012 #776}{Rath, 2010 #464}{Morrison, 2010 #404}. A document with the quantitative findings and a table summarising the potential major sources of behaviour change were circulated to researchers at the trial sites. A large number of change processes were described: developing knowledge; having the confidence to act; the characteristics and behaviour of the facilitator; having increased access to economic and other resources; dissemination of information to non-attenders; increased social acceptability of behaviour change; enhanced community capacity to deal with problems; development of social support; community readiness for change; and change through interaction with wider governance structures. We convened researcher meetings to discuss our quantitative findings and prioritise topics to explore with community members through qualitative data collection. In prioritising topics, we considered the extent to which they had been explored in previous studies {Houweling, 2015 #779}, and the degree to which they were relevant across sites. We explored some topics that were not featured in the table. A draft research protocol and topic guides were written in English by JM and circulated to qualitative researchers at each site for discussion before reaching consensus on the final protocol and topic guides. Both allowed for adaptation to context, but the focus and methods were similar to enable comparative analysis and theoretical generalisability.

At each site, a senior researcher from the trial team recruited, trained, and managed qualitative investigators. At sites in Nepal and India, the senior researchers had been conducting process evaluation and were experienced in qualitative research. In Bangladesh and Malawi, an experienced qualitative researcher was recruited.

*Study design in the Asian sites*

The design was similar for trial sites in Bangladesh, India and Nepal, where participants were purposively sampled from three trial intervention clusters that included poorer and better-off areas. Local research team members and health volunteers categorised better-off and poorer areas and located participants meeting the inclusion criteria (Table 1). In each cluster, we conducted a key informant interview (KII) with a women’s group facilitator, a focus group discussion (FGD) with women who had attended the group in a poor area, and a FGD with women who had not attended the group in a similar area. In the FGD with women who had attended a group, we asked them to identify a woman who had been pregnant during the trial whom they felt had been helped by the intervention, and conducted a semi-structured interview (SSI) with her. The same data collection was done in better-off areas in two of the three sampled clusters at each site. We collected more data in poorer areas because we felt it was important to understand the experience of the intervention from poorer women’s perspectives. Researchers took informed verbal consent from participants due to low levels of literacy.

Researchers used topic guides in interviews and discussions, translated from English and adapted to the local context. Topic guides were split into three sections. The first section invited respondents to remember the time and context of the women’s group intervention and discuss specific examples of women who had been pregnant and given birth, including their behaviour and how they were affected by the women’s group. The second section explored specific care behaviours which we had seen improve (clean delivery kit use and delayed bathing of the newborn infant), and allowed site-specific exploration. For example, in India, participants discussed the reasons why poorer women showed increased uptake of iron supplementation. The third section presented the prioritised opinions on how women’s groups had enabled behaviour change, and how they might have particularly affected poorer women and families. Topics covered dissemination and discussion of ideas and knowledge, acceptability of home care behaviours, and community capacity and social support.

*Study design in Malawi*

In Malawi, the intervention had a similar mortality effect on poorer and better-off families, but had no effect on home care practices and health care uptake. Our qualitative study design differed slightly in that we conducted data collection in two phases. First, we collected data from research teams who had been involved in the trial intervention and monitoring. As far as possible, intervention and monitoring team FGDs were kept separate to capture the common experience of each team about how supervision, monitoring, and study design affected the mortality impacts and behaviours. We conducted one FGD with five facilitation supervisors, one with six monitoring supervisors, one with female group facilitators, one with male trial enumerators from control areas, and one with a mixed gender group of facilitators and trial enumerators. Discussions were led by a senior qualitative researcher who was an established MaiMwana team member, but had not been involved in the trial. Topic guides were developed in English in discussion with the senior researcher, and subsequently translated.

We used findings from the first phase to help us design the topic guides for the second phase of data collection. We adapted them and conducted two FGDs with women’s group attenders from poor and better-off households, and two FGDs with women from poor and better-off households in areas that had not been exposed to the intervention. We also conducted four KIIs with community members, four with trial researchers, and four with facilitators in two clusters. We asked participants to think back to the different terms of the President Bingu Wa Mtalika when we asked questions relevant to a particular year. Using open questions, we explored how the activities and strategies of the women’s groups might have been effective in reducing neonatal mortality among the poor and better-off, and by asking specifically about vegetable gardens, funds, and increased psychosocial support among group attenders. We took informed verbal consent from participants.

**Table 1 Data collection**

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| **Stakeholder** | **Method** | **Total** |
| Key informant (women’s group facilitator) | KII | 12 |
| Group attenders (better-off areas) | FGD | 7 |
| Group attenders (poor areas) | FGD | 10 |
| Group non-attenders (better-off areas) | FGD | 8 |
| Group non-attenders (poor areas) | FGD | 11 |
| Women who showed good care behaviour (better-off areas)\* | SSI | 6 |
| Women who showed good care behaviour (poor areas)\* | SSI | 9 |
| Facilitation supervisors\*\* | FGD | 1 |
| Facilitators\*\* | FGD | 1 |
| Monitoring supervisors\*\* | FGD | 1 |
| Enumerators\*\* | FGD | 1 |
| Facilitators and enumerators\*\* | FGD | 1 |
| Total |  | 68 |

KII: Key informant interview; FGD: Focus Group Discussion; SSI: Semi Structured Interview

\*Bangladesh, India, Nepal

\*\*Malawi

Id numbers

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| --- | --- |
| 1st character | Site Maimwana = iPCP = cEkjut = kSNEHA = nMIRA Makwanpur = wMIRA Dhanusha = h |
| 2nd character | Phase (a or b) |
| 3rd and 4th character | sampling criteria (if relevant)at = attender, na = non attender,  |
| 5th and 6th character | Sampling criteriaep = poorerri = better off fa = women that run the groupsbc = woman that did a good care behaviour |
|  7th – 9th character | ISO 639-3 code for language of transcript  |
| 10th to 13th characters | four digit ID number |