Evaluation of the Community Mobilization (Parivartan) Project Promoting Family Health and Sanitation Behaviors in Bihar

Introduction

Maternal, neonatal and infant health indicators as well as sanitation indicators in the eastern state of Bihar are among the worst in India. Within the state of Bihar these developmental indicators are reported to be the most troubling for the most marginalized communities consisting of Scheduled castes/ scheduled tribes and backward Muslims. The Parivartan ("change" in Hindi) program, implemented by PCI India and funded by the Bill And Melinda Gates Foundation (BMGF)in eight districts of Bihar is modelled on a state government (Government of the state of Bihar in eastern India) program ("Jeevika" livelihood in Hindi) which aims to improve livelihoods of the rural poor women through social and economic empowerment via the platform of self-help groups, with an additional layering of structured inputs on health and sanitation practices, facilitating mutual learning, and collective action to drive change and catalyze social norms and behaviors for family health and sanitation.

Methods

The baseline for this project was conducted in April-July 2013 and the midline survey was conducted in April – July 2014. At baseline, using multistage cluster sampling, data were collected from 35 blocks sampled from the eight Ananya innovation districts. The sample for the baseline survey included female members and group leaders of SHGs newly formed by Parivartan as well as existing groups overseen by Jeevika[1]. Survey participants comprised women belonging to SHGs (n=2,407) and SHG leaders (n=747). The eligibility criteria for the survey included: belonging to SHGs, belonging to SC or ST or backward Muslim castes, and those who had given birth to a child in the past one year prior to survey. At midline eligible women from the same groups (sampled at baseline) were interviewed, thus establishing a panel of groups. The results presented in this abstract are drawn from the dataset of panel groups (n=545 groups; and Baseline=1539 women, Midline=937 women).

Data Analysis

Data analysis was conducted in conformity with the Parivartan Theory of change which primarily states that group formation and processes will lead to collectivization among SHG women (women in the SHG acting together to address each other's MNCHS needs), which in turn will result in improvement in health and sanitation behaviors. It was hypothesized that the SHG+Health (i.e. Parivartan groups) intervention will show better results compared to the SHG only (i.e. Jeevika) intervention. Chi-square tests and difference-in-difference (DID) analyses were run for assessing change: 1) over time - overall, 2) over time within Parivartan women; 3) over time within Jeevika women; 4) difference in change over time between Parivartan and Jeevika groups after controlling for key demographic and collectivization characteristics.

Results

Change in group mobilization processes

[1] a project implemented by Bihar Rural Livelihoods Promotion Society, or BRLPS, to enhance Bihar's rural poor's social and economic empowerment

In case of collectivization parameters, women's confidence in members' ability to work on specific issues (collective efficacy) has improved from 43% to 55% , and the change is significantly more for Parivartan groups (39% vs. 56%, p<0.001) than for Jeevika groups (52% vs. 51%, p=0.839) (DID = 18 percentage points, p<0.001). Similarly, self-efficacy has shown significantly more improvement from baseline to midline in case of Parivartan groups (28% to 40%; p<0.001) than for Jeevika groups (22% to 32%, p<.01).

Change in selected outcome indicators

The changes in group strength, collective efficacy and self-confidence to utilise services seems to have shown significant improvement in selected MNCHS outcome indicators. And the change is significantly better for Parivartan groups than for the Jeevika groups (please see below table with column: DID adjusted for socio-demographic and collectivization characteristics).

Discussion

The 'structured health intervention' given to women in Parivartan groups seems to have contributed even after controlling for collectivization processes. This shows that collectivization processes, as conceptualized in the Parivartan theory of change, if strengthened further will likely contribute to the attainment of the MNCHS goals of this initiative. Of the three collectivisation variables, collective efficacy (confidence in speaking up/acting as a group to address MNCHS needs of individual members in the SHG) improved significantly from baseline to midline, and there was no change in collective agency (action taken by the group as whole in the last 6 months to negotiate on individuals members' behalf to address their MNCHS needs) or collective action. This is in line with the theory of change on community mobilisation which states that the intervention will build members' perceived confidence regarding members' ability to work on specific issues (eg., MNCHS in case of Parivartan). And this will translate gradually to individual as well as collectively, members' participation in advocacy of issues that concern some or all members of the group.

Sub-domain	Parivartan Project Outcome Indicators	Parivartan (SHG+Health)			Jeevika (SHG)			DID (adjusted for demographics and processes)	
		Baseline	Midline	p-value (Chi-sq.)	Baseline	Midline	p-value (Chi-sq.)	DID	p-value
Antenatal Care (ANC)	Percent who recieved antenatal care within first trimester of pregnancy	47.8	49	0.618	47.2	60.2	0.002	-11.5	0.019
	Percent received 2 or more tetanus injections during the pregnancy	95.4	92.8	0.026	97.1	89.9	<0.001	4.8	0.032
	Percent who took IFA for atleast 90 days	14.1	25.2	<0.001	14.1	20.8	0.05	3.3	0.426
	Percent who received full ANC (at least 3 ANC visits + at least 2 tetanus injections + at least 90 IFA tablets)	3.5	9.3	<0.001	2.9	6.9	0.017	1	0.626
Institutional Delivery	Percent of births delivered in a health facility	60.2	70.7	<0.001	61	63.6	0.525	7.1	0.12
	Percentage women visited by health worker within 2 day after delivery	37.1	54.5	<0.001	30.6	60.3	<0.01	-14.6	0.002
Post natal care (PNC)	Percentage who practiced clean cord care	14.7	72.6	<0.001	12.8	62.7	<0.001	6.9	0.067
	Percentage who practiced STSC	32	63.7	<0.001	30.4	53.5	<0.001	7.7	0.09
New born Care	ho fed the baby anything other than breastmilk on first day	35.3	14.4	<0.001	27.9	19.8	0.024	-11.1	0.008
	Percentage newborns bathed within 24 hours of birth	65.5	30.8	<0.001	60.1	53	0.081	-27.8	<0.01
Early, Exclusive Breastfeeding	Percentage who started breastfeeding within one hour of birth	61.3	84.3	<0.001	70.7	79.3	0.019	12.9	0.002
	Percentage exclusively breastfeeding child (0-5 months)	32.9	50.2	<0.001	46.6	37.2	0.22	24.5	0.006
Immunization	Percent children who received age appropriate immunization	42.9	55.3	<0.001	52.5	56.2	0.365	9	0.06
Family Planning	Percentage currently using any method of contraception (0-11 months)	12.1	25.4	<0.001	13.1	14.7	0.553	12.5	<0.01
	Percentage currently using any method (mothers with 6-11 months)	13.8	31.9	<0.001	14.6	18	0.358	15.6	<0.01
	Percentage currently pregnant (6-11 months mothers)	13.7	2.7	<0.001	13.5	3.6	0.001	-0.8	0.738