Original Article

Effectiveness of Mother NGO (MNGO) scheme as a strategic concept in RCH in districts Dehradun and Pauri Garhwal, Uttarakhand

Roy D[1], Joshi K[2], Dhasmana S[3]

[1]Professor, Department of Community Medicine, [2]Senior Coordinator, [3]Coordinator, Mother NGO, Himalayan Institute of Medical Sciences, HIHT University, Swami Ram Nagar, Doiwala, Dehradun, Uttarakhand, 248140.

Abstract

Background: Effective application of MNGO (RCH) concept has significantly and positively influenced the improved health scenario of the state and the scheme justifiably served as an innovative and strategic input to make available services accessible to the unserved/ underserved population at far outreaches of the state of Uttarakhand.

Methods: An observational, descriptive study was designed with a disadvantaged population of 119242 from select 427 villages of the districts of Dehradun and Pauri Garhwal to study trend of key RCH indicators for service utilization & effectiveness of MNGO Scheme. Community endorsed BCC, capacity building and prioritized RCH services as per CNA provided by FNGOs through community and clinic based approaches comprised the scheme components.

Results: Implementation results showed a linear increase in proportion of beneficiaries for key RCH indicators over time (2000-09); difference of status for all indicators between baseline (2000-01) & project- end (2008-09) values was found statistically significant (p<0.05). Further, comparison of project end achievement data with corresponding DLHS data from study districts showed significant (p<0.05) difference; also, nominal impression (FGDs) yielded evidence of community ownership of the initiative.

Conclusion: Trend of key RCH indicators, comparison of project-end achievement with concurrent available survey results and nominal impression (FGDs) from the beneficiaries provided ample evidence of effectiveness of MNGO (RCH) scheme as a community initiative in districts Dehradun and Pauri Garhwal.

Key Words: MNGO, FNGO, DLHS, FGD, CNA.

Introduction:

National Population Policy (NPP) 2000[1] identified partnership with NGOs as one of the strategic themes for addressing unmet Reproductive & Child Health (RCH) needs of un-served / underserved people at the outreach, essentially to increase access and coverage of a comprehensive package of RCH services. Accordingly, in the Ninth Five Year Plan (1997-2002), Mother NGO (MNGO) scheme was launched as supplement and/or complement to existing public health initiatives in which selected NGOs were designated 'Mother NGO's in allocated district/s. These MNGOs were nodal agencies & facilitators for implementation of RCH program by capacity building and nurturing smaller Field NGOs (FNGOs)[2].

Atypical geo-topography of mountainous Uttarakhand is a major hindrance to effective health care delivery to population at the outreach; 80% of the population of the state lives in sparsely populated hamlets which are mostly inaccessible and barely negotiable by conventional modes of transport [3]. In such a scenario, MNGO (RCH) scheme was thought to justifiably serve as an innovative and strategic input to make available services accessible to the unserved/underserved population at far outreaches of the state [2]. Himalayan institute Hospital Trust (HIHT) as the Mother NGO successfully facilitated implementation of RCH programme in select blocks at deep outreaches of the state since 2000. It is considered that effective application of MNGO (RCH) concept has significantly and positively influenced the improved health scenario of the state vis-a vis state heath policy/ 11th Five Year Plan goals [4,5]. The present study purports to study trend of key RCH indicators for service utilization by MNGO scheme beneficiaries and effectiveness of MNGO Scheme as a strategic input in RCH particularly in reference to districts Dehradun and Pauri Garhwal of Uttarakhand.

Address for Correspondence:
Debabrata Roy, Professor, Department of Community Medicine, Himalayan Institute of Medical Sciences, HIHT University, Swami Ram Nagar, Doiwala, Dehradun, Uttarakhand, 248140.
Email: droy97@rediffmail.com

Materials & Methods:

An observational study with a descriptive design (cross sectional) was planned; universe of the study was the population of the MNGO implementation blocks i.e 6,86,006 from 10 blocks (Raipur, Sahaspur, Vikas Nagar, Kalsi, Thailisain, Nainidanda, Pabo, Beerokhal, Jaharikhal, Pauri City) of districts of Dehradun and Pauri Garhwal (since 2000 and through phasic implementation till end of phase III in 2009). Study population comprised a disadvantaged population of 1,19,242 from 427 villages of the 10 implementation blocks (table 1) .

MNGO (HIHT) as the nodal agency imparted Training of Trainers (ToT) and built capacity of 10 Field NGOs (FNGOs) as implementing agencies on community endorsed Behaviour Change Communication (BCC), community sensitization & capacity building and prioritized RCH service delivery through community and clinic based approaches as per Community Needs Assessment (CNA) done for a baseline database generated at project launch at respective phases. Trend of key RCH indicators was studied for the project coverage in Dehradun & Pauri Garhwal for the period 2000-2009 and data analogy of RCH indicators i.e project achievement vs District Level Household Survey[6,7] (DLHS) results for the corresponding period in Dehradun & Pauri Garhwal (Rural) was done to ascertain difference in key indicator status and its level of significance, if any, to test hypothesis of an association of MNGO initiative and improved key RCH indicator status within project coverage. Besides, Focus Group Discussions (FGDs) at Block level were conducted to elicit nominal/qualitative impression of the extent of community stake holding & ownership of the scheme in view of future sustainability.

Results:

Key RCH indicators i.e. 'Pregnant women (PW) registered', Beneficiaries receiving 'ANC Package', Opting for 'Institutional deliveries' & 'Assisted deliveries', 'Child Immunization Prevalence Rate' (IPR), 'Contraceptive Prevalence Rate' (CPR), 'Reproductive Tract Infection' (RTI) diagnosed by syndromes, 'Exclusively breastfed infants' (EBF) and 'Infants initiated breastfeeding within 1 hour post birth'- all these, in terms of proportion of beneficiaries / rates of utilization, showed consistent increase over phases of implementation through 2000-09 (table 2); also difference of status for all indicators between baseline (2000-01) & project- end (2008-09) values was found statistically significant ($p<0.05$).

Further, comparison of project end achievement data with corresponding DLHS data (table 3 & 4) showed significant difference ($p<0.05$) for key study indicators as well; also, nominal impression (FGDs) yielded evidence of community ownership of the initiative.

Table 1: MNGO Coverage, Dehradun & Pauri Garhwal, 2000-2009

District	Year	Block (no.)	Villages	Population
Dehradun	2000-2001 (Phase I)	Raipur (1)	30	10000
	2003-2004 (Phase II)	Raipur, Sahaspur, (2)	38	23072
	2006-2009 (Phase III)	Raipur, Sahaspur, Vikas Nagar, Kalsi (4)	119	26501
Total		4	187	59573
Pauri Garhwal	2000-2001 (Phase I)	Thalisain, (2) Pauri City	32	16580
	2003-2004 (Phase II)	Thalisain, Jaharikhal (2)	77	19800
	2006-2009 (Phase III)	Thalisain, Beeronkhal, Nainidanda, Pabo (4)	131	23289
Total		06	240	59669
Grand Total (Dehradun & Pauri Garhwal)		10	427	119242

Table 2: Trend of key RCH indicators, (MNGO Coverage, Dehradun & Pauri, 2000-2009)

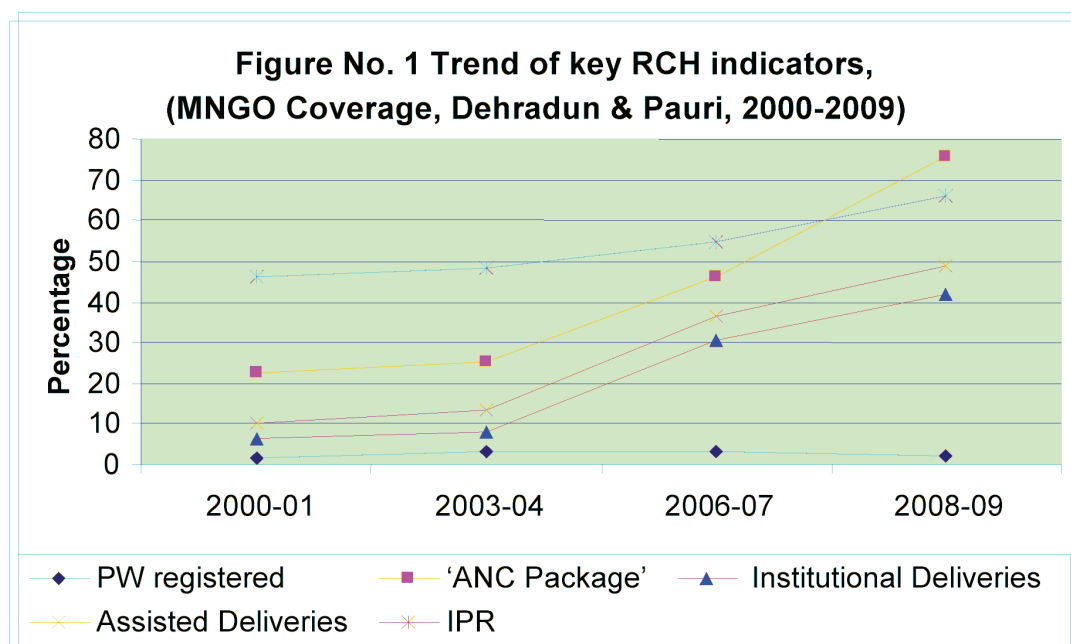| RCH indicators	2000-01 n=26580	2003-04 n=42872	2006-07 n=49790	2008-09 n=45469	Level of significance ('p' value)
PW registered	398 (1.50%)	1291 (3.01%)	1553 (3.12%)	930 (2.05%)	p< 0.05
'ANC Package'	90 (22.61%)	332 (25.02%)	713 (45.91%)	703 (75.59%)	p< 0.05
Institutional Deliveries	26 (6.53%)	101 (7.92%)	474 (30.52%)	391 (42.04%)	p< 0.05
Assisted Deliveries	40 (10.05%)	171 (13.25%)	522 (36.61%)	456 (49.03%)	p< 0.05
Child Immunization Prevalence Rate (IPR); 0-12 months	318 (46.36%)	364 (48.15%)	854 (54.99%)	872 (66.11%)	p< 0.05
Contraceptive Prevalence Rate (CPR)	1736 (49.35%)	2126 (52.06%)	3696 (52.88%)	4095 (53.93%)	p< 0.05
RTI (diagnosed by syndromes)	1346 (38.27%)	1458 (35.69%)	1971 (28.20%)	531 (6.99%)	p< 0.05
Exclusively breastfed infants (EBF)	131 (32.98%)	499 (38.64%)	400 (41.32%)	398 (54.97%)	p< 0.05
Infants initiated breastfeeding within 1 hour post birth	238 (59.69%)	808 (62.59%)	658 (67.98%)	631 (87.15%)	p< 0.05

(n= Study Population)

Table 3: Data Analogy of RCH indicators: Project achievement vs DLHS, Dehradun

RCH Indicator	MNGO (Dehradun) 2008-09	DLHS III (Dehradun) 2007-08	p Value
'ANC Package'	466 (77.41%)	43.0%	<0.05
Institutional Deliveries	293 (48.51%)	38.0%	>0.05
Assisted Deliveries	395 (65.40%)	3.9%	<0.05
IPR	430 (53.87%)	79.6%	<0.05
CPR	2694 (58.57%)	52.7%	<0.05
Exclusively breastfed infants (EBF)	262 (54.02%)	58.5%	>0.05
Infants initiated breastfeeding within 1 hours post birth	433 (72.77%)	48.0%	<0.05

Table 4: Data Analogy of RCH indicators: Project achievements vs DLHS, Pauri Garhwal

RCH Indicator	MNGO Pauri Garhwal 2008-09	* DLHS Pauri Garhwal	p Value
'ANC Package'	237 (72.2%)	50 %	<0.05
Institutional Deliveries	98 (40.33%)	18.6 %	<0.05
Assisted Deliveries	61 (25.10%)	17 %	>0.05
IPR	442 (84.3%)	65 %	>0.05
CPR	1401 (46.81%)	42.3 %	>0.05
Exclusively breastfed infants (EBF)	136 (56.9%)	50 %	>0.05
Infants initiated breastfeeding within 1 hour post birth	198 (82.8%)	80 %	>0.05

* Source: State PIP's for 2008-09, Uttarakhand

Figure No. 1 Trend of key RCH indicators, (MNGO Coverage, Dehradun & Pauri, 2000-2009)

Figure No. 2 Trend of key RCH indicators, (MNGO Coverage, Dehradun & Pauri, 2000-2009)

Legend: CPR ◆ — RTI ■ — EBF ▲ — Infants initiated BF within 1 hours post birth
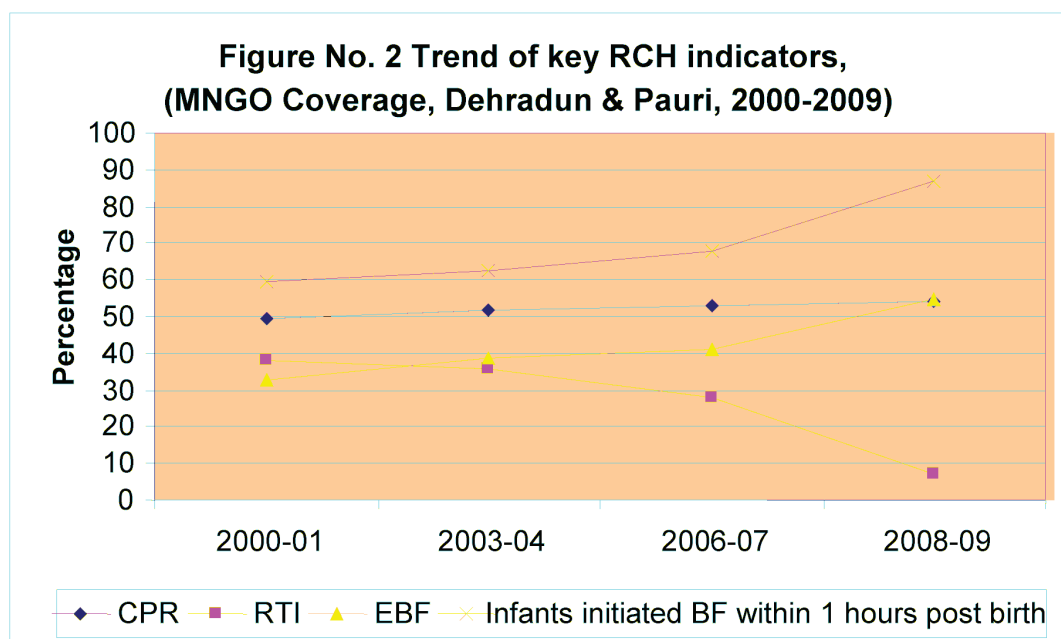
Discussion:

In recent years, trend of changes in health scenario of the state has been evident in the improvement of key health delivery & utilization indicators[8,9]. Strategic input from MNGO (RCH) toward this improvement can not be underestimated. Analogy of the trend of service utilization vis-à-vis choice RCH indicators with National Family Health Survey (Uttarakhand, rural) & DLHS (rural) data during the concurrent period (2000-2009) revealed distinct & statistically significant changes in proportion of MNGO beneficiaries or their rates of utilization, particularly for the study indicators; pattern in changes with NFHS and DLHS data were not as consistent[6,8,9]. Importantly, comparison of status of a few indicators from MNGO implementation results (base line) in 2000-01 with corresponding NFHS & DLHS data revealed interesting observations; despite being an un-served/under-served area, whereas CPR (MNGO) was 49.4%, CPR (NFHS II) & (DLHS II, Dehradun) were less i.e. 43.1% & 34.8% respectively; 'ANC package' (MNGO) was 22.6% as against 19.7% & 29% for (NFHS II) & (DLHS II, Dehradun) respectively; IPR, 12-23 months (MNGO) too was 46.4% as against 40.9% & 29.5% for (NFHS II) & (DLHS II, Dehradun) respectively; as regards very poor indicator status of 'Institutional' & 'Assisted Deliveries' (MNGO) i.e. 6.5% & 10% respectively- this could be justifiably explained by the fact that MNGO coverage was primarily resource poor and beyond the reach of conventional public health system; interestingly, EBF (MNGO) i.e. 32.9% was even better than corresponding status in NFHS III (31.2%); also, like wise, 'Infants initiated breastfeeding within 1 hr. post birth' (MNGO) i.e. 59.7% was better than its corresponding status in both NFHS III (34.2%) & DLHS III (48%) respectively.

Comparison of project-end achievement with corresponding DLHS data[6,7] revealed that for district Dehradun (table 3), difference in status of almost all key study indicators (except 'Institutional Deliveries' & 'EBF') was statistically significant (p<0.05) ; as for 'IPR', statistical significance obviously did not imply association with MNGO strategy– however, considering insignificant base line 'IPR' for MNGO coverage (Dehradun) i.e. 38.9%, project-end achievement of 53.9% at such un-served / under-served terrain with attendant problems of cold chain logistics, could be considered quite high; more over and significantly, MNGO project goal set for 'IPR' during the period was more than accomplished. Comparing project-end achievement with corresponding DLHS data for Pauri Garhwal (table 4), it was observed that though statistical significance for difference in indicator status was evident

only for 'ANC Package' & 'Institutional Deliveries', proportion of beneficiaries utilizing services vis-a-vis all study indicators was considerably more at MNGO coverage.

An analogous study by IIM, Ahmedabad[10] in three states (Gujrat, Assam & Haryana), re-inforced the present study findings; partnership with NGOs and 'contracting out' in delivering and provision of Reproductive and Child Health (RCH) services through mother NGO (MNGO) in the un-served and under-served regions was evaluated as important initiatives in India. End-line evaluation of the phase III of the scheme[11] found that the goal set at baseline for key indicators had been achieved and could be measured by objectively verifiable indicators.

Conclusion:

Quantitative estimation of trend of key RCH indicators through 2000-09, comparison of project-end achievement with concurrent available survey results and nominal/ qualitative impression (FGDs) of the beneficiaries provided ample evidence of effectiveness of MNGO (RCH) scheme as a community initiative in districts Dehradun and Pauri Garhwal. However, authors agree with case study of three states[10] cited earlier highlighting several barriers & bottlenecks ,namely, delay and uncertainty of funding and contract renewal, lack of partnership orientation in the scheme, lack of trust among the key stakeholders, capacity constraint in the district and state health system, weak monitoring system, procedural delays and multiple points of authority and reporting relationships. It was also observed that the capacity of field NGOs to deliver in the programme was constrained due to non -availability of financial and human resources

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