

Impact of Community Mobilization & training of Lady Health workers in newborn care in improving Child Survival: Effectiveness Cluster-randomized controlled trial.

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Background: Pakistan contributes to approximately 7 percent of the global burden of neonatal deaths with almost 298000 newborn deaths. Despite efforts in this direction, there are few interventions strategies that can be implemented at scale in health system settings.

The National Program for Primary Health Care (PHC) & Family Planning (FP) PHC was launched in 1994 with the aim to provide Primary Health Care and Family Planning services to the communities at their door step by deploying Community based Lady Health Workers (LHWs). The number has increased gradually to cover 60 million natives with almost 100,000 workers by the end of 2005.

Objectives: We undertook a pilot effectiveness trial of a package of community-based interventions for reduction of perinatal and neonatal mortality in the rural Sindh district of Hala & Matiari between years 2003-04.

Methods: The pilot study area comprised of 317 villages having 21000 households and population of approximately 140,000. The overall area of Hala and Matiari has population of 494,187. The area was divided of 32 clusters.

The interventions Packages were pilot tested in 4 intervention clusters with 4 matched control clusters. The baseline census was conducted in pilot 8 clusters. The results were as given in following

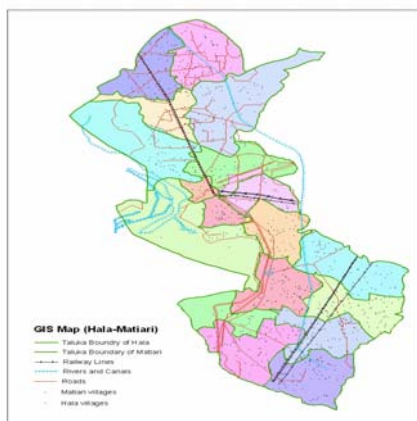


Table1. Baseline characteristics of Pilot area

Clusters	Pilot Clusters	
	Control	Intervention
Households	9545	11148
Population	64517	74083
Pregnant women	1691	2069
Still Birth Rate	58.0	65.8
Neonatal M Rate	52.1	57.2
Perinatal M Rate	94.6	110.7

Packages: There were two intervention packages; 1) Community Education and Organization and 2) Enhanced LHW training.

Target villages were encouraged to create voluntary Community Health Committees (CHCs) whose purpose was facilitation of community mobilization and education around perinatal and newborn health.



Another key parallel component of the project was to organize training courses of 3 days each area quarterly for Lady Health Workers of National Program of Primary Health Care & FP with the objective of improving their skills in essential maternal and newborn care. This enhanced package encouraged LHWs to visit mothers twice during pregnancy & for newborn assessment at 5 time points on day 0, 3, 7, 14 and 28.



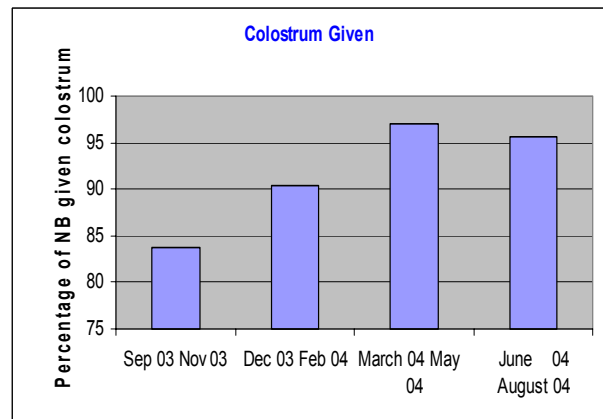
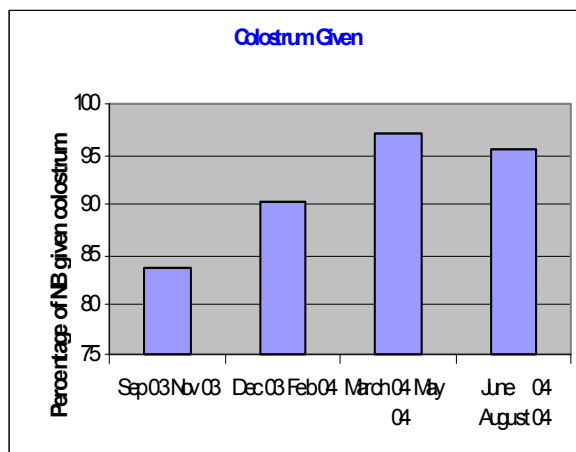
Findings: The Overall impact of the interventions indicated significant reduction in Neonatal Mortality Rate [RR=0.77:95 % CI; 0.62-0.96] & Perinatal Mortality Rate [RR=0.76:95 % CI; 0.62-0.96] in the intervention clusters.

Table 2: Comparison of mortality rates after one year (Sep 2003- August, 04)

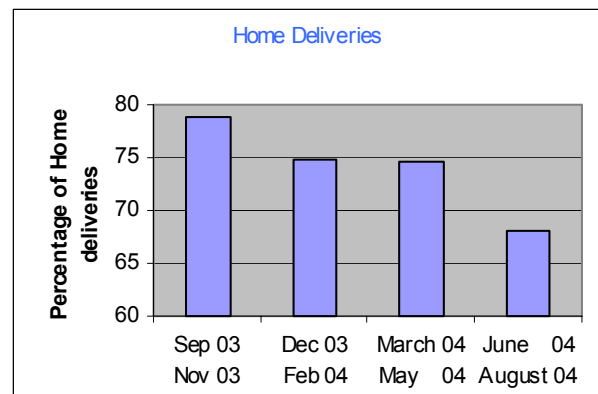
Vital Statistics	Baseline		Midline	
	*Inter:	Control	Inter:	Control
SB Rate	65.8	58	42.1	58.7
NM Rate	48	38.8	37.5	49.1
LNM Rate	9.2	13.3	10.6	14.1
NM Rate	57.2	52.1	48.1	63.2
Perinatal M Rate	110.7	94.6	77.9	105

***Intervention**

The practice of colostrum administration significantly improved (OR3.23: 95% CI; 1.97-5.29);



The births at home reduced (OR 0.68: 95% CI; 0.48-0.96);



& seeking skilled birth attendance was (OR 1.57: 95% CI; 1.04-2.37) in the intervention clusters of the project.

Conclusion: These preliminary data indicate that enhancing LHW skills for essential newborn care in health system settings, coupled with community mobilization strategies can lead to significant improvement in perinatal and newborn outcomes.

Policy Implications: Our data suggest that these low tech and low cost intervention can be up-scaled in other districts of Pakistan to reduce the burden of perinatal and neonatal mortality.

Acknowledgement

We are very grateful to our team at Hala field office for devotion and hard work in conducting this project. We also appreciate co-operation of National Program for PHC to implement intervention at community level through LHWs. Last but not the least, we are indebted of the communities, without their participation, the materialization of this project would have been impossible.

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