

Improving Postpartum Family Planning in Settings with High Home Births: Results and implications of the Healthy Fertility Study

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PPFP program: Key challenges

- International Postpartum FP Program started in 1966 by Population Council
 - Hospital based program in 21 countries
 - 138 hospitals participated
 - Vast majority of women deliver at home – could not reach critical mass
 - Ended in 1974 and PPFP fell into a period of neglect
 - Remains a major challenge to reach women who deliver at home



Projahnmo-1: 2001-2006

- Developed, implemented and evaluated a **basic Package of community-based MNH interventions**
- Facility delivery rate = 9% in the study area
- **Two antenatal home visits** to promote
 - *ANC, TT, IFA supplementation*
 - *Facility delivery/skilled attendance at delivery*
 - *Recognition of maternal danger signs, and care seeking and*
 - *Essential Newborn Care (ENC), newborn danger sign, care seeking*
- **Three postnatal home visits** on day 1, 3 and 7
 - *To reinforce ENC, newborn danger sign, care seeking*
 - *To assess, identify, and manage sick newborns*
- The community-based package of MNH interventions reduced NMR by 34% ([Baqui et al., Lancet, 2008](#)) – contributed to the design of Bangladesh national neonatal health strategy in 2009



Healthy Fertility Study: Objectives

- **Demonstrate feasibility and effectiveness of integrating PFP in to a community-based MNH program**
 - Integration may have mutually synergistic effect and more cost-effective but that has not been clearly documented
- **Improve birth spacing behavior (timing and spacing) through multiple interventions**
- **Provide evidence that PFP can improve women's and children's health in addition to attaining demographic goals**
 - Evidence of effect of birth intervals on improved birth outcomes is based on observational data - data that are subject to confounding which are difficult to remove – almost no longitudinal data

Conceptualizing FP-MNH service integration

Pregnancy

Delivery

Postpartum

Sub-district Health Complex & Family Welfare Clinic:
Training and commodity assurance for newborn health

- Counseling on optimum pregnancy spacing and postpartum family planning including LAM
- Provision of contraceptives and supplies

Community-based inputs: CHW Service delivery & support systems

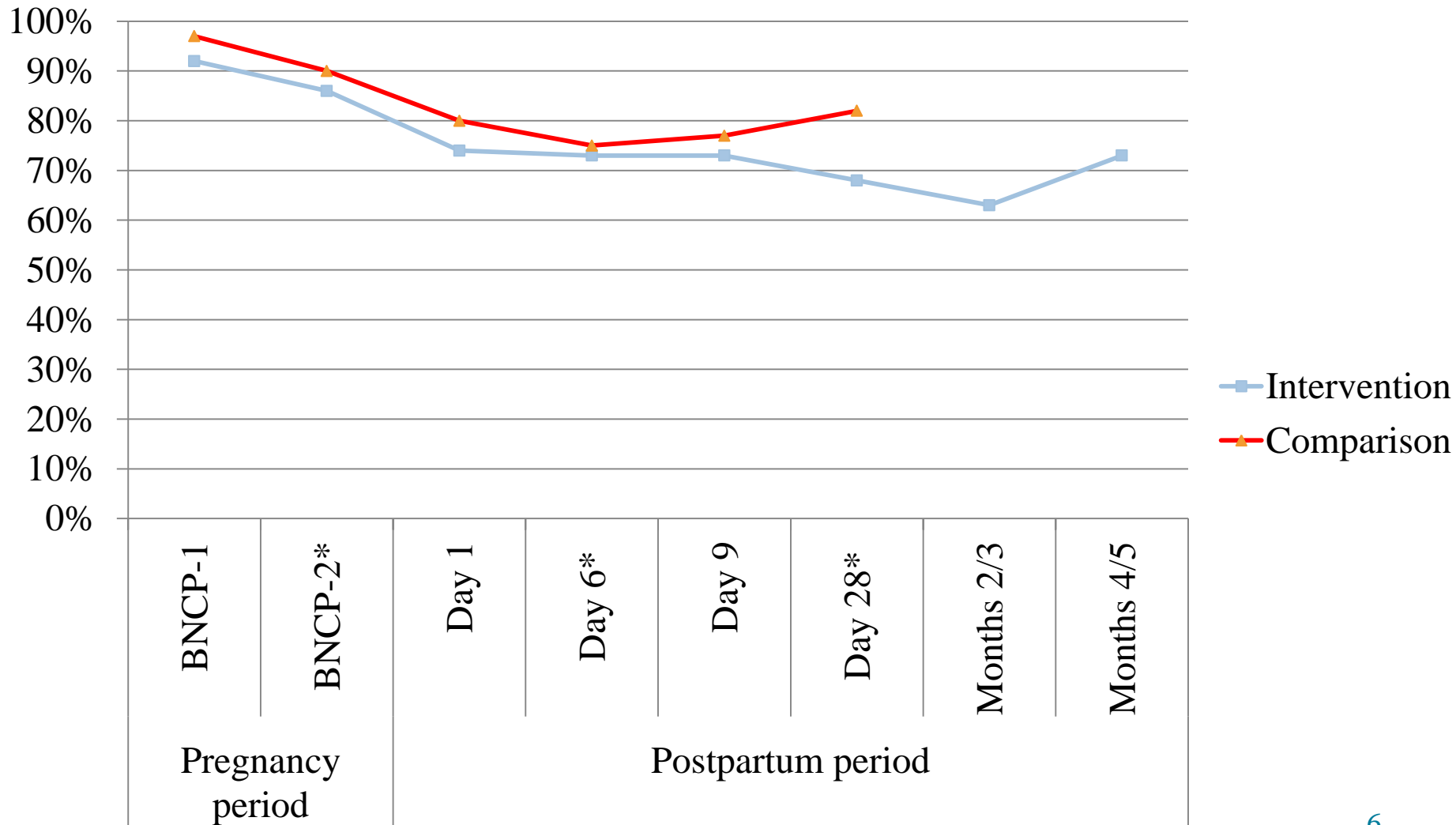
Pregnancy Surveillance	Pregnancy visit-1: 12-16 wks	Pregnancy visit-2: 30-34 wks	Delivery notification	Home visit: Day 1	Home visit: Day 6	Home visit: Day 29-35	Home visit: Month 2/3	Home visit: Month 4/5
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Family planning messages; optimum pregnancy spacing and family planning methods including LAM

- Distribution of FP commodities
- Community Mobilizers conducted group meetings with women of reproductive age and key community stakeholders, including religious leaders

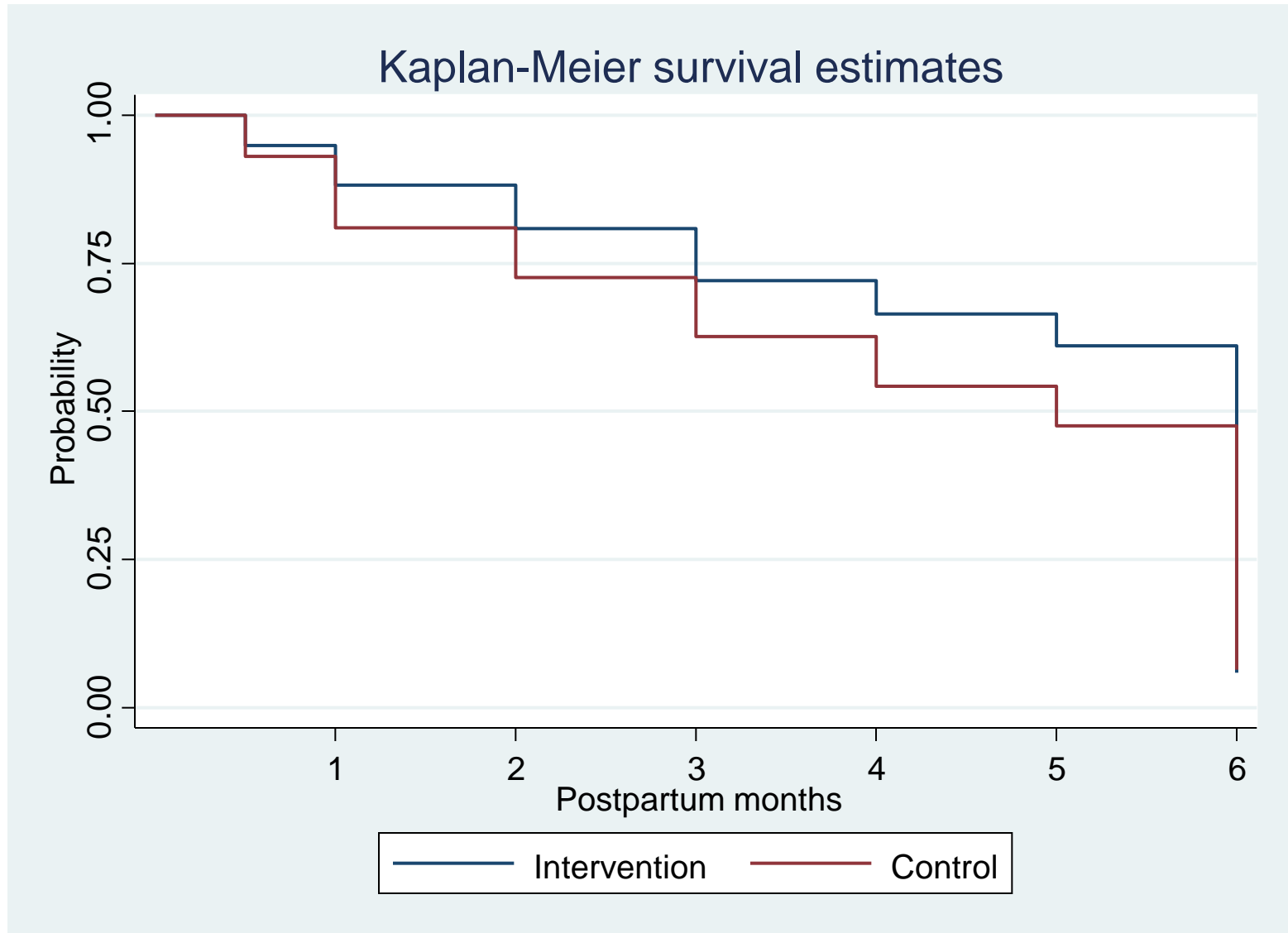
Feasibility: *Can CHWs achieve high coverage?*



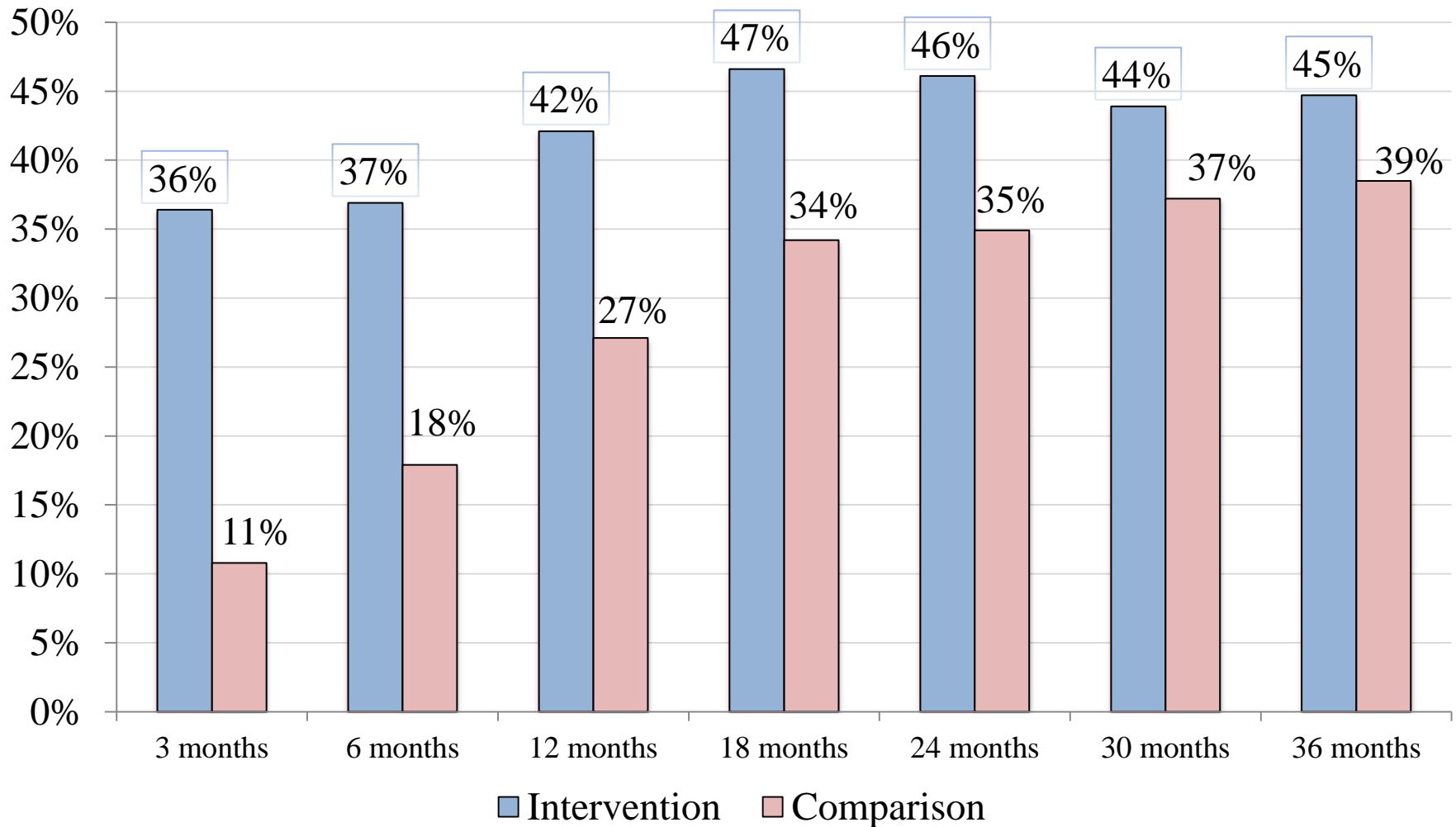
Feasibility: Does FP-MNH integration result in any negative *effects on newborn care practices?*

	Intervention	Comparison	p-value
Timing of wrapping the baby after delivery	N=1,725	N=1,657	
<10 minutes	50%	44%	0.00
>=10 minutes	46%	54%	
Don't remember	4%	2%	
mean \pm SD median (min, max)	9.8 \pm 17.8	11.4 \pm 17.4	
Initiation of breastfeeding	N=1,725	N=1,657	
Within 30 min	57%	47%	0.00
After 30 min	41%	52%	
Don't remember	2%	1%	

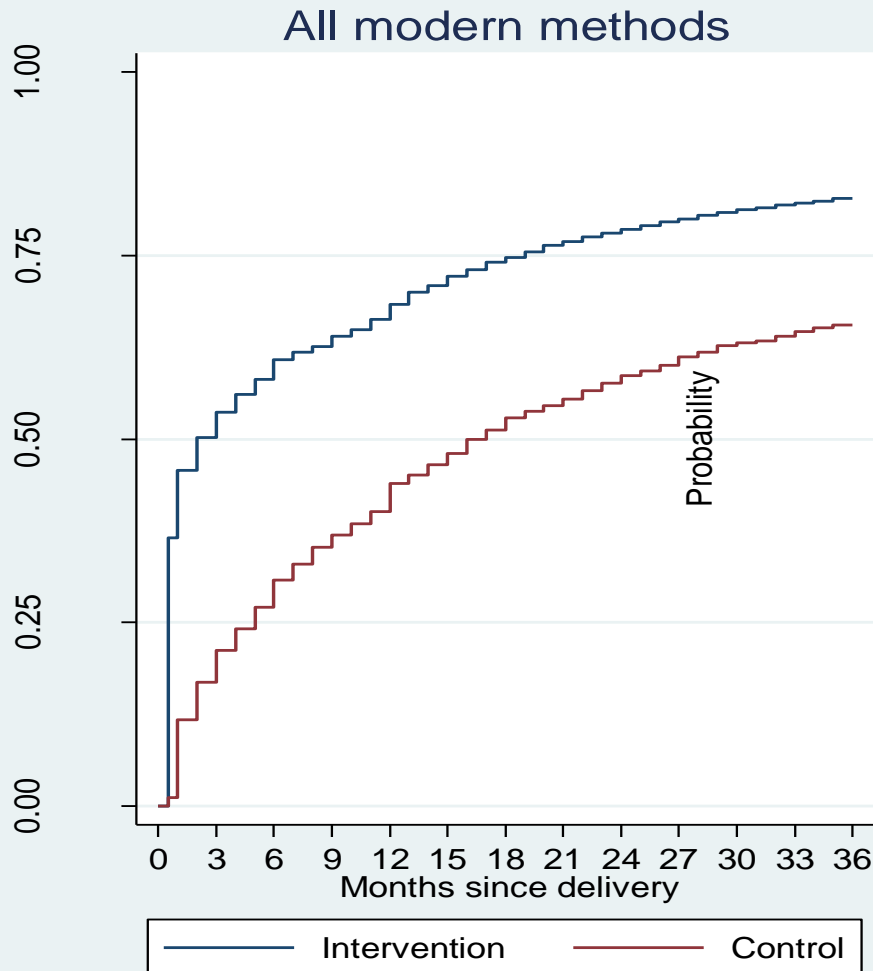
Promotion of LAM significantly increased duration of exclusive breastfeeding



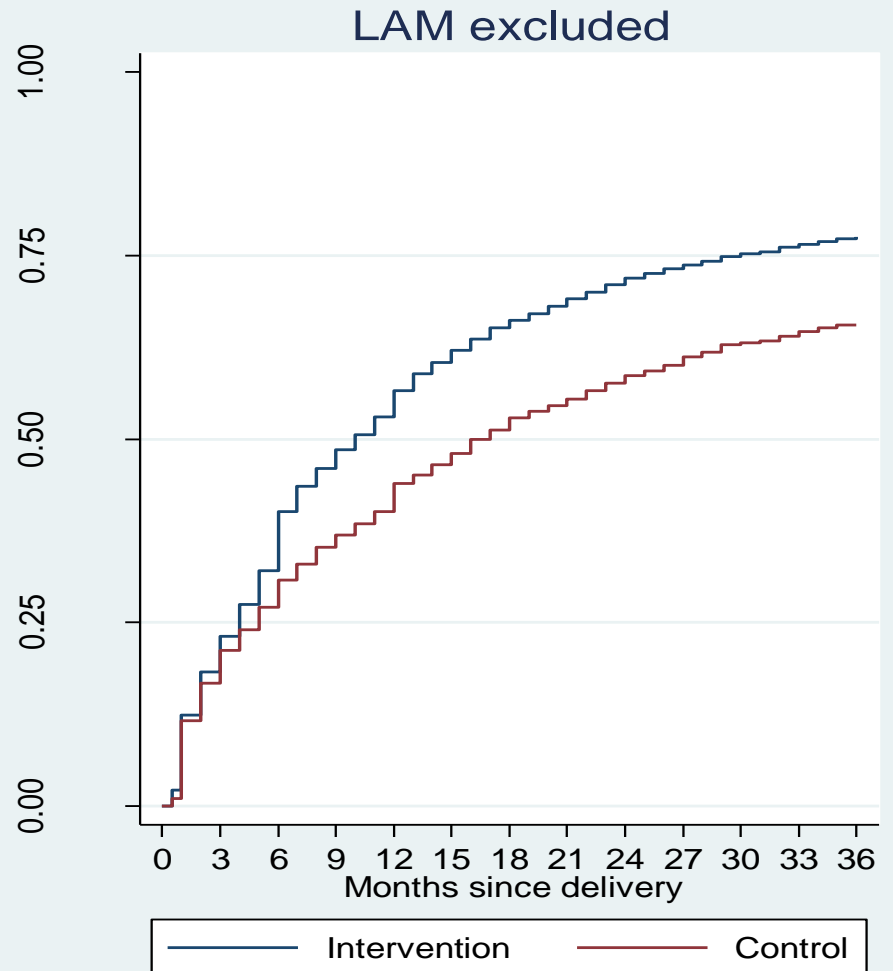
Contraceptive Prevalence Rate was higher in the intervention arm at each visit round



Contraceptive cumulative adoption probability was higher in the intervention arm [with and without LAM]

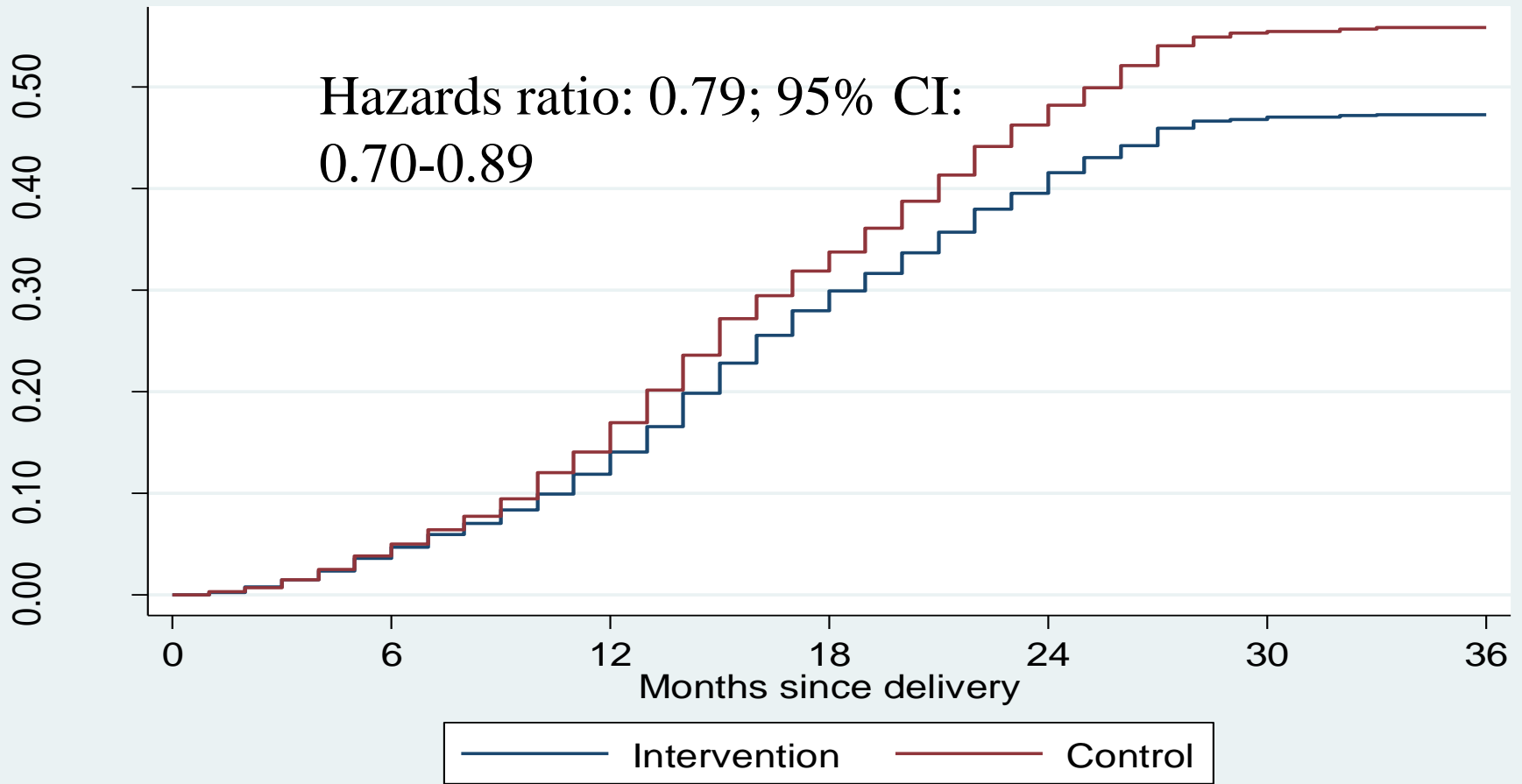


P < 0.001



P < 0.001

Birth to pregnancy interval was longer in the intervention arm after the delivery of the index child



Wilcoxon P = 0.001

Impact on birth outcomes: Fewer preterm births

- Among subsequent births, preterm births were lower in the intervention arm (20% vs 24%)
- Adjusted odds of preterm birth outcomes were 22% lower in the intervention area, compared to the control area
 - (OR: 0.78 [95% CI: 0.61-1.0], $p=0.056$).

Anemia among mothers

Study arm	No anemia	Mild	Moderate	Severe	N	P-value
Intervention	61.8	15.9	21.8	0.5	652	0.002
Comparison	46.2	20.3	32.4	1.1	704	
Total	53.7	18.22	27.3	0.8	1356	

		95% Confidence Interval		
	Relative risk	Lower	Upper	P-value
Mild anemia	0.56	0.37	0.85	.008
Moderate/severe anemia	0.53	0.33	0.84	.007

Adjusted for age, education, socioeconomic status/asset, parity, n of subsequent births

Anemia among children

Study arm	No anemia	Mild	Moderate	Severe	N	P-value
Intervention	52.8	21.3	25.7	0.3	720	0.004
Comparison	40.8	20.5	38.3	0.5	834	
Total	46.3	20.9	32.4	0.4	1554	

		95% Confidence Interval		
	Relative risk	Lower	Upper	P-value
Mild anemia	0.77	0.51	1.15	0.199
Moderate/severe anemia	0.53	0.35	0.81	0.004

Adjusted for age, education, socioeconomic status/asset, parity, n of subsequent births

Nutritional status among children under 5 years of age:

Stunting and underweight were lower in the intervention children

	Intervention %	Control %	P-value
Stunting (Height –for-age <-2SD)	47.8	53.8	0.003
Underweight (weight-for-age <-2SD)	35.4	40.0	0.015
Wasting (weight-for height <-2SD)	10.8	11.2	0.805
N	1985	1866	3851

Lessons Learned

- **Integration** of PFP within a community-based MNH program is **feasible**.
- Integration of PFP services within a larger MNH platform was **not associated with any negative impact on MNH services**; rather there was a synergy



Lessons Learned (Cont.)

- The HFS model led to **>20% increased cumulative probability of modern method adoption** through 36 months postpartum period, **preventing pregnancies that have the highest risk** for the women and newborn health.
- The HFS intervention associated with a **21% reduction of probability of shorter birth intervals** (95% CI: 11.7% - 30.4%) and **22% lower risk of preterm birth**
- Beyond fertility regulation, a post-partum family planning program **improves women and children's health**

Acknowledgement

- USAID
- Bangladesh MOHFW
- Sylhet community/ mothers
- Study Team
- Shimantik
- ACCESS/ MCHIP/ MCSP
- Study investigators