

Maternal Mental Health & Infant Health Outcomes: An Intervention among Women Living with HIV and Perinatal Depression in Malawi

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Background & Aims

- In Malawi, 15% of women are living with HIV (WLHIV) and up to 30% experience perinatal depression (PND), increasing the risk for poor infant health outcomes.
- This study will estimate the effect of a counseling intervention (the enhanced Friendship Bench [EFB]), on infant health outcomes.

Methods

- Study Population:** pregnant WLHIV (≤ 34 weeks gestation) with depression symptoms (SRQ-20 ≥ 8)
- Study Location:** Bwaila Hospital and Area 18 Health Center
- Recruitment Period:** August 2020 to August 2021
- Randomization:** Participants (n=80) randomly assigned to study arm.
 - EFB:** 4 prenatal and 2 postnatal counseling sessions
 - Usual Care:** evaluation, brief counseling, education, and/or referral
- Analysis:** Mean differences and 95% confidence intervals were estimated via linear regression models
- Funding:** This clinical trial (NCT04143009) was funded by the National Institute of Mental Health (R34MH11680).

Results

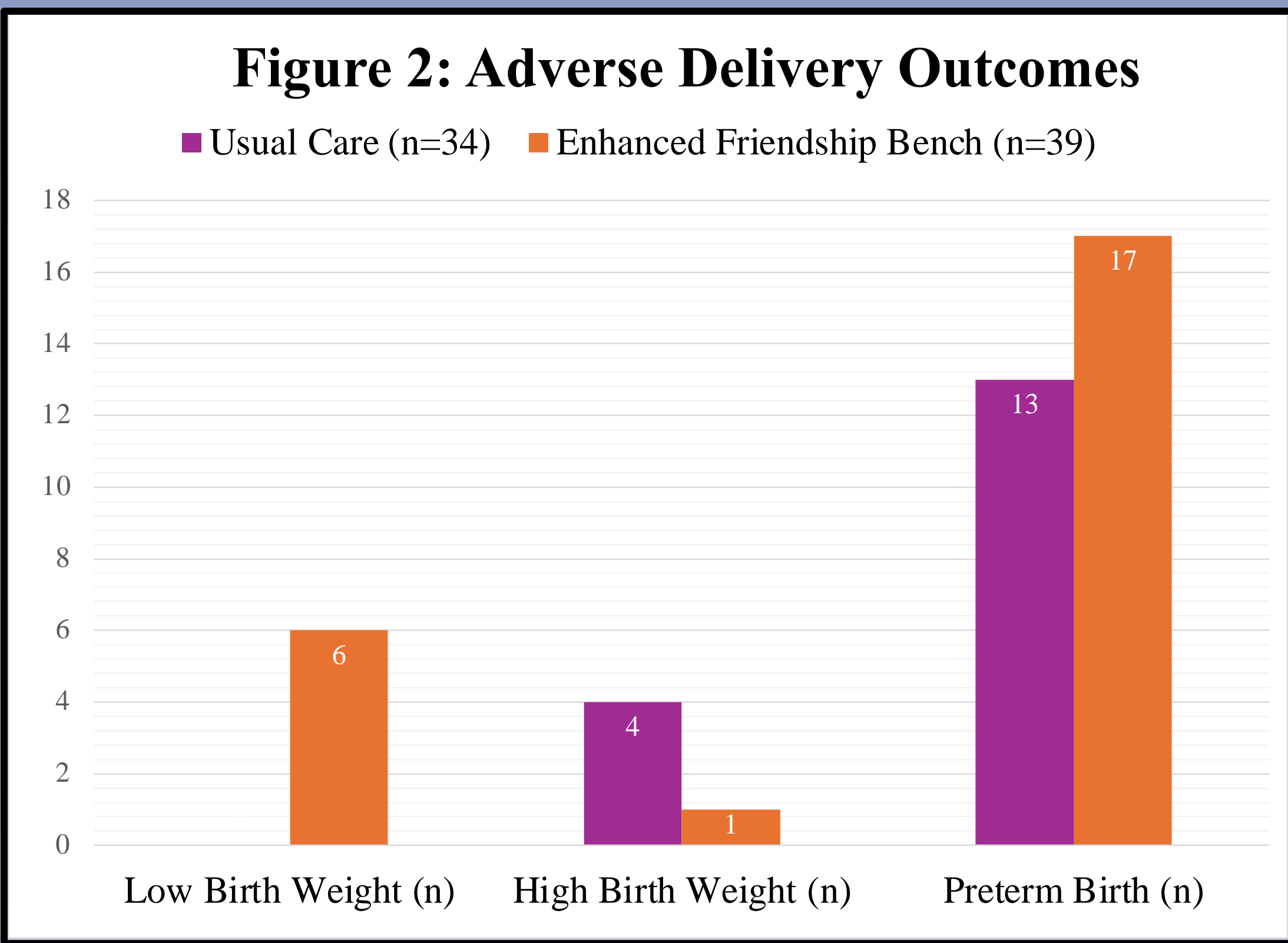
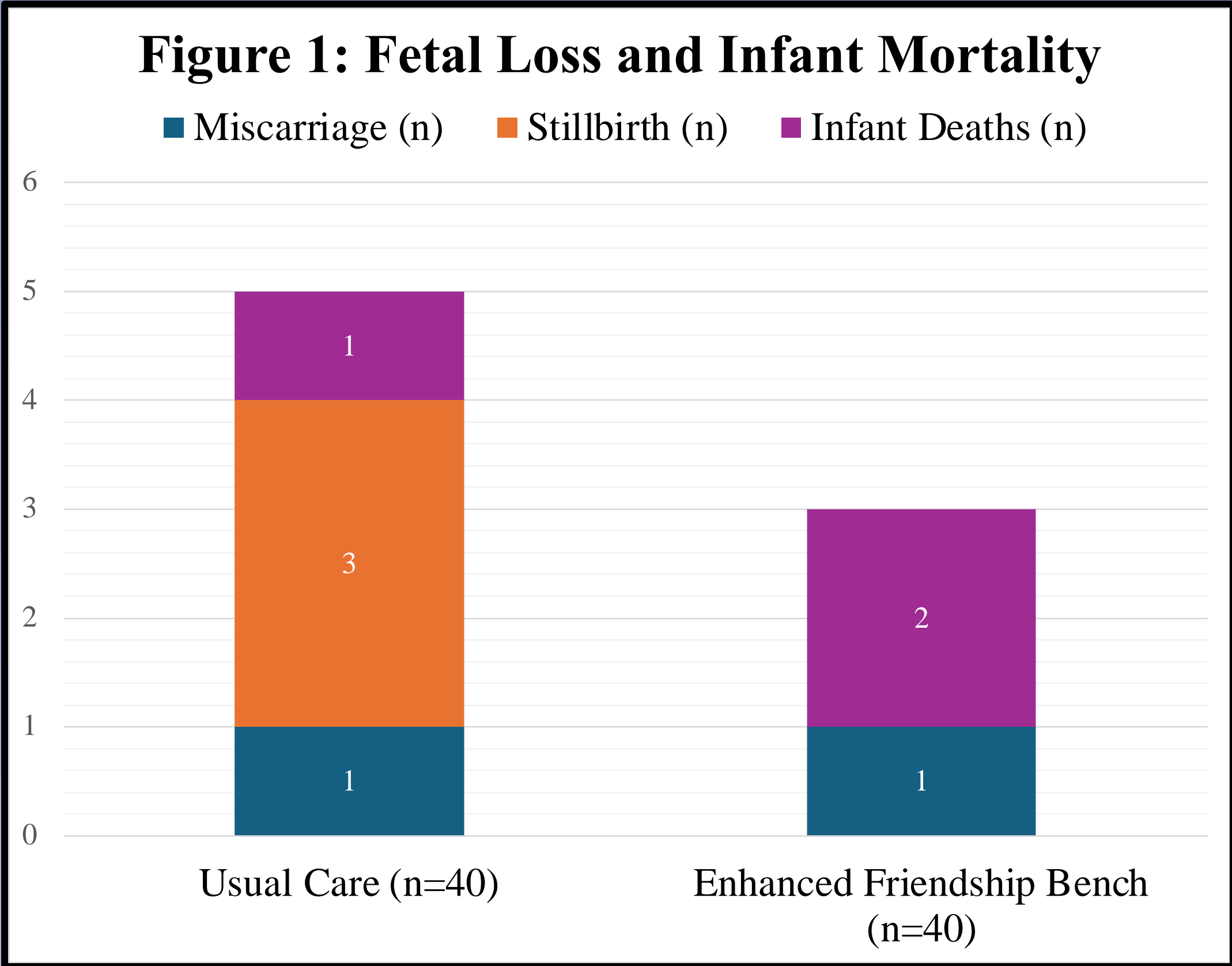


Table 1: Infant Delivery Outcomes at Birth			
	Usual Care (n=34)	Enhanced Friendship Bench (n=39)	
	Mean (SD)		Mean Difference (95% CI)
Birthweight (grams)	3,224 (465)	2,925 (550)	-298(-534,-62)
Gestational Age (weeks)	38 (1.56)	37 (2.48)	-0.99(-1.95,-0.02)

*Reported results are among singleton livebirths only

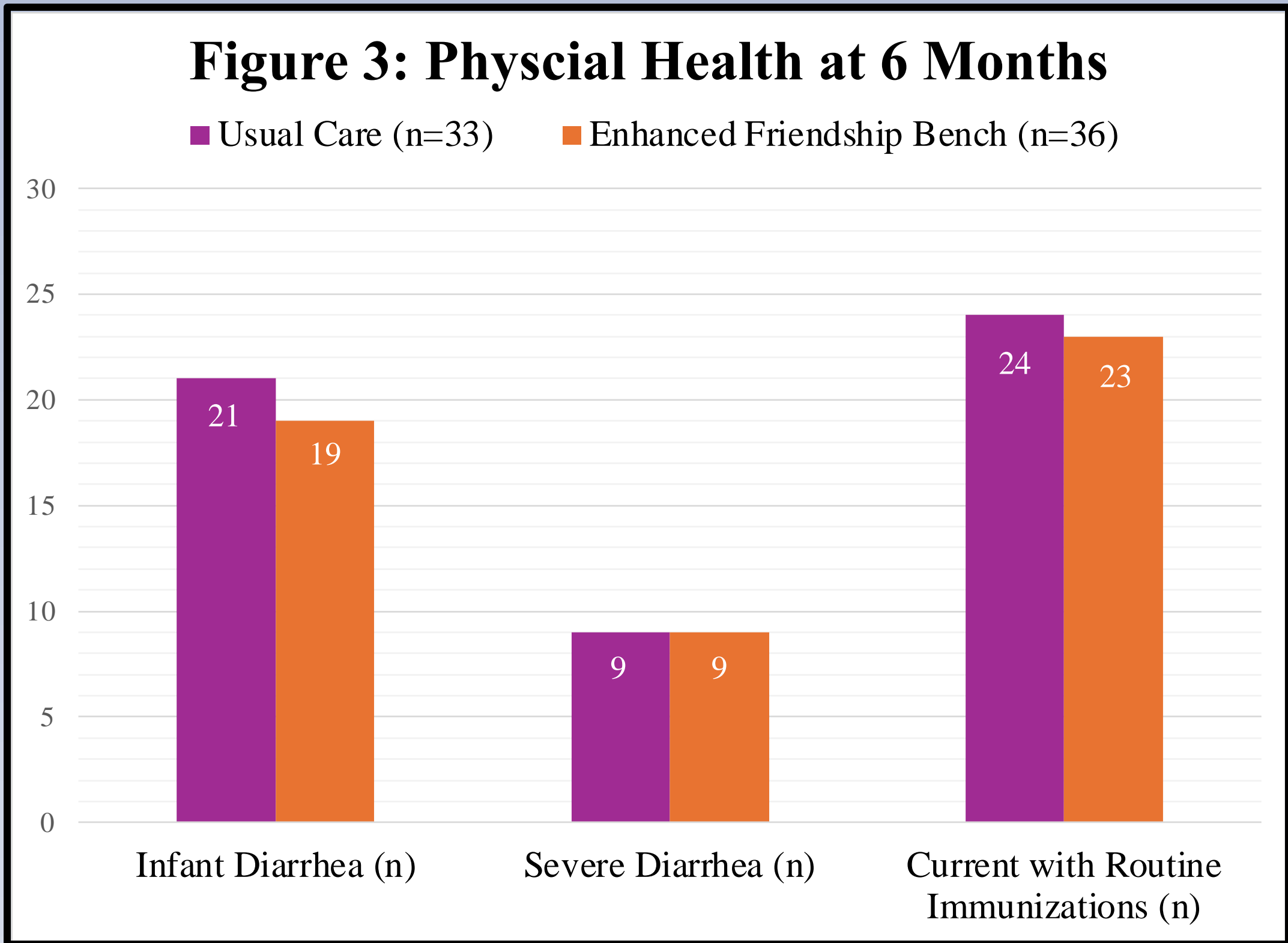


Table 2: Infant Health Outcomes at 6 Months			
	Usual Care (n=33)	Enhanced Friendship Bench (n=36)	
	Mean (SD)		Mean Difference (95% CI)
Physical Outcomes			
Weight (grams)	7,777 (961)	7,690 (849)	-87(-534,360)
Height(cm)	65 (2.5)	65 (2.7)	0.16(-1.17,1.49)
Developmental Outcomes			
OMCI ¹	37.91 (4.25)	34.33(5.94)	-3.57 (- 6.03,-1.12)
IYCD ²	17.61 (1.25)	17.58 (1.83)	-0.02(-0.76,0.72)
FCI ³	15.49(3.75)	15.64 (4.65)	0.15(-1.85,2.15)

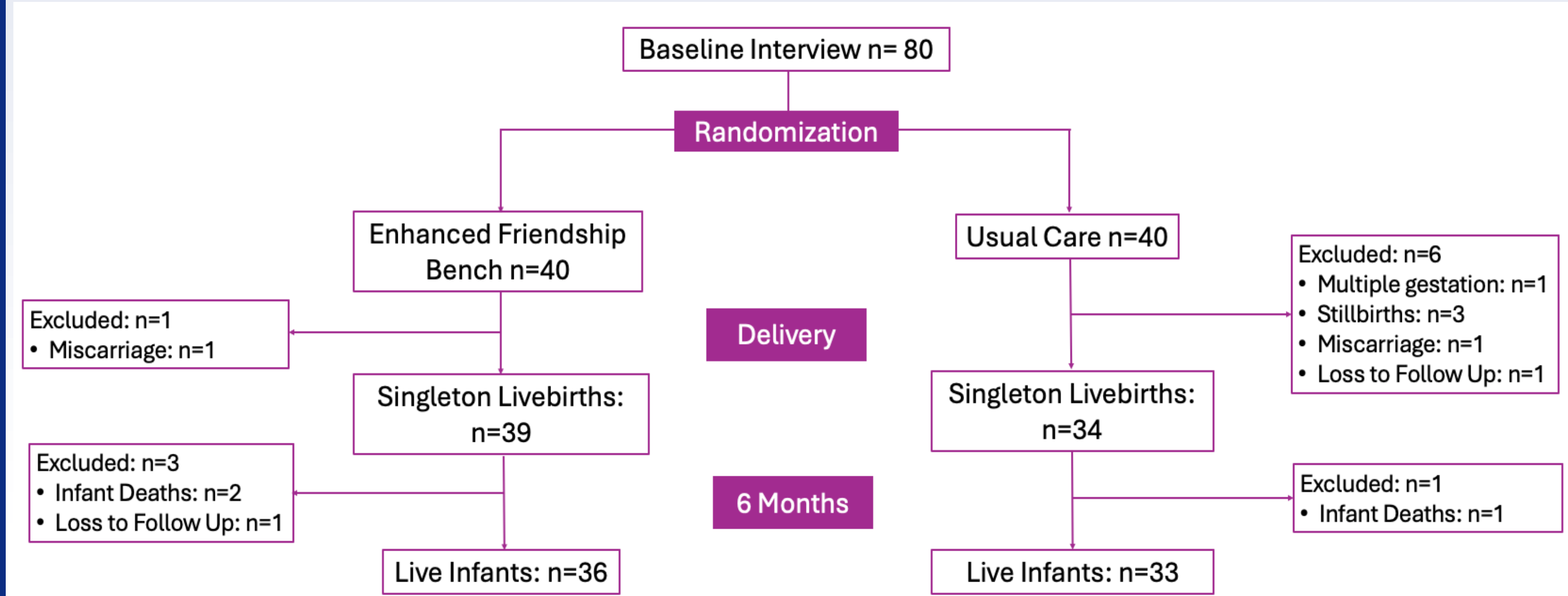
¹Observation of Mother-Child Interaction (OMCI), range 0-45, higher scores indicate more positive interactions

²Infant and Young Child Development (IYCD), range 0-20, higher scores indicate more acquired skills

³Family Care Indicators(FCI), range 0-25), greater score indicates better home environment for development

*Reported results are among infants alive at 6 months only

Phases of the Trial



Key Takeaways

- In this pilot, we observed few differences in infant outcomes with mothers randomized to EFB versus usual care.
- There were less fetal losses (i.e. stillbirths) in EFB compared to usual care.
- At delivery, infants in EFB had slightly lower birthweight and gestational age compared to usual care.
- At 6 months, there was no meaningful difference in weight nor height between arms. Child development indicators IYCD and FCI were similar across arms with slightly lower OMCI in EFB.
- In the EFB arm, there were less total diarrhea episodes and similar severe diarrhea episodes compared to usual care. Vaccination adherence was marginally lower in EFB arm compared to UC.
- A fully powered randomized control trial is necessary to better understand the impacts of EFB on infant health outcomes.

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