



# Effect of calcium supplementation in pregnancy on maternal anaemia and iron status: Findings from two randomized trials in India and Tanzania

## Citation

Ali, Nazia Binte, Christopher Sudfeld, and Wafaie Fawzi. "Effect of calcium supplementation in pregnancy on maternal anaemia and iron status: Findings from two randomized trials in India and Tanzania." Preprint, submitted in 2025.

## Link

<https://dash.harvard.edu/handle/1/42720633>

## Terms of use

This article was downloaded from Harvard University's DASH repository, and is made available under the terms and conditions applicable to Other Posted Material (LAA), as set forth at

<https://harvardwiki.atlassian.net/wiki/external/NGY5NDE4ZjgzNTc5NDQzMGIzZWZhMGFIOWI2M2EwYTg>

## Accessibility

<https://accessibility.huit.harvard.edu/digital-accessibility-policy>

## Share Your Story

The Harvard community has made this article openly available.  
Please share how this access benefits you. [Submit a story](#)

Supplemental table 1. Effect modifications of continuous haemoglobin in g/dl at 32 weeks of gestation in India trial (reference group: 1500 mg calcium arm)

	500 mg Calcium	1500 mg Calcium	Mean difference*(95% CI)	P values for interaction from likelihood ratio tests
	Mean (SD)	Mean (SD)		
Baseline anemia				
No	11.6 (0.9)	11.6 (0.9)	0.01 (-0.04, 0.06)	0.95
Yes	10.8 (0.9)	10.8 (0.9)	0.02 (-0.04, 0.07)	
Baseline moderate to severe anemia				
No	11.4 (0.9)	11.4 (0.9)	-0.00 (-0.05, 0.03)	0.58
Yes	10.3 (1.1)	10.3 (1.1)	0.02 (-0.08, 0.13)	
Baseline iron deficiency				
No	11.5 (0.9)	11.4 (1.0)	0.04 (-0.09, 0.18)	0.31
Yes	11.1 (1.1)	11.1 (1.0)	-0.06 (-0.21, 0.10)	
Baseline iron deficiency anemia				
No	11.5 (1.0)	11.5 (0.9)	-0.02 (-0.14, 0.09)	0.27
Yes	10.7 (0.9)	10.6 (0.9)	0.11 (-0.10, 0.33)	
Baseline calcium intake <800 mg/day				
No	11.3 (1.0)	11.2 (1.0)	0.07 (-0.05, 0.18)	0.32
Yes	11.2 (1.0)	11.2 (1.0)	0.01 (-0.04, 0.05)	
Baseline iron intake <27 mg/day				
No	11.3 (1.4)	11.2 (0.8)	0.16 (-0.46, 0.72)	0.71
Yes	11.2 (1.0)	11.2 (1.0)	0.01 (-0.03, 0.05)	
Calcium adherence 75 <sup>th</sup> percentile				
No	11.2 (1.0)	11.2 (1.0)	-0.00 (-0.05, 0.04)	0.13
Yes	11.3 (1.0)	11.2 (1.0)	0.07 (-0.01, 0.15)	
Iron adherence 75 <sup>th</sup> percentile				
No	11.2 (1.0)	11.2 (1.0)	0.01 (-0.05, 0.05)	0.52
Yes	11.2 (1.0)	11.1 (1.0)	0.01 (-0.04, 0.12)	

\*Mean differences adjusted for facilities.

Supplemental Table 2. Effect modifications of continuous serum ferritin (mcg/L) adjusted for CRP and AGP at 32 weeks of gestation in India trial (reference group: 1500 mg calcium arm)

	500 mg Calcium	1500 mg Calcium		
	Mean (SD)	Mean (SD)	Mean difference*(95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	23.7 (28.9)	22.5 (22.7)	1.27 (-2.24, 4.79)	
Yes	21.5 (18.8)	24.6 (30.8)	-3.22 (-7.57, 1.12)	0.11
Baseline moderate to severe anemia				
No	22.8 (25.6)	23.1 (26.7)	-0.35 (-3.26, 2.55)	
Yes	23.2 (23.0)	24.9 (21.4)	-1.72 (-9.62, 6.19)	0.75
Baseline iron deficiency				
No	24.9 (21.6)	26.2 (24.3)	-1.32 (-4.95, 2.31)	
Yes	19.9 (29.3)	19.8 (27.7)	0.14 (-3.96, 4.24)	0.59
Baseline iron deficiency anemia				
No	23.6 (26.6)	23.3 (22.1)	0.33 (-2.73, 3.40)	
Yes	19.5 (18.8)	23.1 (37.3)	-3.95 (-9.98, 2.09)	0.21
Baseline calcium intake <800 mg/day				
No	20.1 (16.7)	22.4 (25.4)	-2.89 (-11.29, 5.49)	
Yes	23.2 (26.1)	23.4 (26.2)	-0.27 (-3.16, 2.61)	0.56
Baseline iron intake <27 mg/day				
No	26.9 (28.1)	17.6 (12.8)	14.69 (-29.19, 58.57)	
Yes	22.8 (25.3)	23.3 (26.2)	-0.60 (-3.33, 2.14)	0.49
Calcium adherence 75 <sup>th</sup> percentile				
No	22.9 (26.9)	24.6 (30.6)	1.55 (-5.21, 2.09)	
Yes	22.8 (23.4)	21.5 (18.0)	1.24 (-2.86, 5.34)	0.32
Iron adherence 75 <sup>th</sup> percentile				
No	21.9 (26.3)	23.8 (28.6)	-2.19 (-5.54, 1.16)	
Yes	24.9 (22.9)	22.3 (20.5)	2.74 (-1.96, 7.45)	0.09

\*Mean differences were adjusted for facilities.

Supplemental table 3. Effect modifications of anemia (haemoglobin <11 g/dl) at 32 weeks of gestation in India trial (reference group: 1500 mg calcium arm)

	500 mg Calcium n/N (%)	1500 mg Calcium n/N (%)	Relative risk* (95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	452/2438 (18.5)	439/2436 (18.0)	1.02 (0.89, 1.17)	
Yes	1078/2029 (53.1)	1086/2035 (53.4)	0.99 (0.92, 1.09)	0.75
Baseline moderate to severe anemia				
No	1118/3885 (28.8)	1053/3815 (27.6)	1.04 (0.96, 1.13)	
Yes	412/582 (70.8)	472/656 (72.0)	0.99 (0.86, 1.13)	0.51
Baseline iron deficiency				
No	95/381 (24.9)	80/351 (22.8)	1.10 (0.82, 1.48)	
Yes	108/285 (37.8)	107/301 (35.5)	1.07 (0.82, 1.39)	0.86
Baseline iron deficiency anemia				
No	136/525 (25.9)	106/509 (20.8)	1.24 (0.97, 1.60)	
Yes	67/141 (47.5)	81/143 (56.6)	0.84 (0.61, 1.17)	0.049
Baseline calcium intake <800 mg/day				
No	190/605 (31.4)	178/561 (31.7)	1.00 (0.81, 1.22)	
Yes	1344/3870 (34.7)	1347/3917 (34.4)	1.01 (0.94, 1.09)	0.89
Baseline iron intake <27 mg/day				
No	6/18 (33.3)	6/26 (23.1)	1.43 (0.46, 4.43)	
Yes	1528/4457 (34.3)	1519/4452 (34.1)	1.01 (0.94, 1.08)	0.54
Calcium adherence 75 <sup>th</sup> percentile				
No	1193/3377 (35.3)	1166/3400 (34.3)	1.03 (0.96, 1.12)	
Yes	341/1098 (31.1)	359/1078 (31.1)	0.91 (0.79, 1.06)	0.15
Iron adherence 75 <sup>th</sup> percentile				
No	1134/3298 (34.3)	1119/3309 (33.8)	1.02 (0.93, 1.11)	
Yes	400/1177 (33.9)	406/1169 (34.7)	0.97 (0.85, 1.11)	0.58

\*Relative risks were adjusted for facilities.

Supplemental table 4. Effect modifications of moderate to severe anemia (haemoglobin <10 g/dl) at 32 weeks of gestation in India trial (reference group: 1500 mg calcium arm)

	500 mg Calcium n/N (%)	1500 mg Calcium n/N (%)	Relative risk* (95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	73/2438 (2.9)	66/2436 (2.7)	1.07 (0.78, 1.49)	
Yes	291/2029 (14.3)	283/2035 (13.9)	1.05 (0.91, 1.22)	0.89
Baseline moderate to severe anemia				
No	171/3885 (4.4)	143/3815 (3.8)	1.17 (0.94, 1.46)	
Yes	193/582 (33.2)	206/656 (31.4)	1.02 (0.84, 1.24)	0.36
Baseline iron deficiency				
No	14/381 (3.7)	18/351 (5.1)	0.73 (0.36, 1.45)	
Yes	32/285 (11.8)	29/301 (9.6)	1.16 (0.70, 1.92)	0.28
Baseline iron deficiency anemia				
No	26/525 (4.9)	21/509 (4.1)	1.19 (0.66, 2.11)	
Yes	20/141 (14.2)	26/143 (18.2)	0.82 (0.46, 1.48)	0.37
Baseline calcium intake <800 mg/day				
No	42/605 (6.9)	38/561 (6.8)	1.02 (0.65, 1.57)	
Yes	322/3870 (8.3)	311/3917 (7.9)	1.05 (0.90, 1.22)	0.89
Baseline iron intake <27 mg/day				
No	2/18 (11.1)	2/26 (7.7)	1.36 (0.19, 9.64)	
Yes	362/4457 (8.1)	347/4452 (7.8)	1.04 (0.90, 1.20)	0.79
Calcium adherence 75 <sup>th</sup> percentile				
No	265/3400 (7.8)	283/3377 (8.4)	1.07 (0.91, 1.27)	
Yes	84/1078 (7.8)	81/1098 (7.4)	0.93 (0.69, 1.27)	0.42
Iron adherence 75 <sup>th</sup> percentile				
No	253/3309 (7.7)	259/3298 (7.9)	1.03 (0.86, 1.22)	
Yes	96/1169 (8.2)	105/1177 (8.9)	1.07 (0.81, 1.41)	0.80

\*Relative risks were adjusted for facilities.

Supplemental table 5. Effect modifications of iron deficiency (adjusted serum ferritin\* <15 mcg/dl) at 32 weeks of gestation in India trial (reference group: 1500 mg calcium arm)

	500 mg Calcium n/N (%)	1500 mg Calcium n/N (%)	Relative risk** (95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	181/406 (44.6)	186/415 (44.8)	1.00 (0.86, 1.15)	
Yes	135/283 (47.7)	109/259 (42.1)	1.17 (0.97, 1.40)	0.20
Baseline moderate to severe anemia				
No	279/613 (45.5)	260/587 (44.3)	1.04 (0.87, 1.22)	
Yes	37/76 (48.7)	35/87 (40.2)	1.21 (0.76, 1.93)	0.53
Baseline iron deficiency				
No	160/395 (40.5)	128/366 (34.9)	1.17 (0.93, 1.47)	
Yes	155/291 (53.3)	167/307 (54.4)	0.98 (0.79, 1.22)	0.28
Baseline iron deficiency anemia				
No	244/550 (44.4)	222/527 (42.1)	1.05 (0.87, 1.26)	
Yes	71/136 (52.2)	73/146 (50.0)	1.07 (0.78, 1.49)	0.91
Baseline calcium intake <800 mg/day				
No	34/70 (48.6)	34/75 (45.3)	1.09 (0.68, 1.75)	
Yes	282/619 (45.6)	261/599 (43.6)	1.05 (0.88, 1.24)	0.89
Baseline iron intake <27 mg/day				
No	1/2 (50.0)	2/4 (50.0)	0.72 (0.06, 8.05)	
Yes	315/687 (45.9)	293/670 (43.7)	1.06 (0.90, 1.24)	0.75
Calcium adherence 75 <sup>th</sup> percentile				
No	172/366 (46.9)	271/392 (43.6)	1.07 (0.86, 1.32)	
Yes	144/323 (44.6)	126/282 (43.9)	1.03 (0.81, 1.30)	0.79
Iron adherence 75 <sup>th</sup> percentile				
No	227/463 (49.0)	194/440 (44.1)	1.13 (0.93, 1.37)	
Yes	89/226 (39.4)	101/234 (43.2)	0.90 (0.67, 1.20)	0.20

\*Serum ferritin were adjusted for CRP and AGP in India using BRINDA method.

\*\*Relative risks were adjusted for facilities.

Supplemental table 6. Effect modifications of iron deficiency anemia (haemoglobin <11 g/dl and adjusted serum ferritin\* <15 mcg/dl) at 32 weeks of gestation in India trial (reference group: 1500 mg calcium arm)

	500 mg Calcium n/N (%)	1500 mg Calcium n/N (%)	Relative risk** (95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	43/406 (10.6)	31/415 (7.5)	1.39 (0.88, 2.22)	0.38
Yes	61/283 (21.6)	54/259 (20.8)	1.07 (0.74, 1.55)	
Baseline moderate to severe anemia				
No	82/613 (13.4)	62/587 (10.5)	1.27 (0.92, 1.77)	0.68
Yes	22/76 (28.9)	23/87 (26.4)	1.10 (0.61, 1.98)	
Baseline iron deficiency				
No	42/395 (10.6)	24/366 (6.6)	1.65 (1.00, 2.73)	0.15
Yes	61/291 (20.9)	61/307 (19.9)	1.06 (0.74, 1.51)	
Baseline iron deficiency anemia				
No	71/550 (12.9)	44/527 (8.4)	1.54 (1.05, 2.24)	0.068
Yes	32/136 (23.5)	41/146 (28.1)	0.88 (0.56, 1.41)	
Baseline calcium intake <800 mg/day				
No	11/70 (15.7)	10/75 (13.3)	1.12 (0.47, 2.61)	0.85
Yes	93/619 (15.0)	75/599 (12.5)	1.22 (0.90, 1.65)	
Baseline iron intake <27 mg/day				
No	1/2 (50.0)	0/4 (0.0)	Not estimable	
Yes	103/687 (14.9)	85/670 (12.6)		
Calcium adherence 75 <sup>th</sup> percentile				
No	57/366 (15.6)	55/392 (14.0)	1.09 (0.76, 1.59)	0.49
Yes	47/323 (14.6)	30/282 (10.6)	1.35 (0.85, 2.13)	
Iron adherence 75 <sup>th</sup> percentile				
No	82/463 (17.7)	48/440 (10.9)	1.65 (1.15, 2.35)	0.002
Yes	22/226 (9.73)	37/234 (15.8)	0.62 (0.36, 1.06)	

\*Serum ferritin adjusted for CRP and AGP using BRINDA method.

\*\*Relative risks were adjusted for facilities.

Supplemental table 7. Effect modifications of continuous serum haemoglobin (g/dl) at 32 weeks of gestation in Tanzania trial (reference group: 1500 mg calcium arm)

	500 mg Calcium Mean (SD)	1500 mg Calcium Mean (SD)	Mean difference* (95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	11.1 (1.2)	11.1 (1.2)	-0.01 (-0.07, 0.06)	
Yes	10.6 (1.3)	10.6 (1.3)	-0.03 (-0.11, 0.05)	0.62
Baseline moderate to severe anemia				
No	10.9 (1.2)	10.9 (1.2)	-0.01 (-0.07, 0.05)	
Yes	10.4 (1.4)	10.4 (1.4)	-0.04 (-0.17, 0.10)	0.77
Baseline iron deficiency				
No	11.2 (1.2)	11.3 (1.1)	-0.06 (-0.27, 0.15)	
Yes	10.9 (1.3)	10.8 (1.3)	0.21 (-0.03, 0.46)	0.09
Baseline iron deficiency anemia				
No	11.2 (1.2)	11.2 (1.2)	0.00 (-0.18, 0.17)	
Yes	10.8 (1.5)	10.5 (1.4)	0.24 (-0.14, 0.63)	0.24
Baseline calcium intake <800 mg/day				
No	10.9 (1.2)	10.9 (1.3)	0.02 (-0.07, 0.11)	
Yes	10.9 (1.2)	10.9 (1.2)	-0.02 (-0.10, 0.04)	0.39
Baseline iron intake <27 mg/day				
No	10.8 (1.2)	10.9 (1.2)	-0.08 (-0.21, 0.06)	
Yes	10.9 (1.2)	10.9 (1.2)	-0.00 (-0.06, 0.06)	0.29
Calcium adherence 75 <sup>th</sup> percentile				
No	10.9 (1.2)	10.9 (1.2)	-0.02 (-0.08, 0.04)	
Yes	10.9 (1.2)	11.0 (1.2)	-0.01 (-0.11, 0.09)	0.91
Iron adherence 75 <sup>th</sup> percentile				
No	10.8 (1.2)	10.9 (1.2)	-0.04 (-0.10, 0.02)	
Yes	11.0 (1.2)	10.9 (1.2)	0.04 (-0.06, 0.14)	0.19

\*Mean differences adjusted for facilities.

Supplemental table 8. Effect modifications of continuous serum ferritin (mcg/L) adjusted for CRP at 32 weeks of gestation in Tanzania trial (reference group: 1500 mg calcium arm)

	500 mg Calcium	1500 mg Calcium		
	Mean (SD)	Mean (SD)	Mean difference*(95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	14.6 (13.1)	16.2 (15.2)	-1.66 (-4.89, 1.56)	
Yes	15.8 (13.3)	19.1 (35.8)	-13.04 (-7.46, 1.36)	0.62
Baseline moderate to severe anemia				
No	14.7 (12.6)	16.9 (24.0)	-2.02 (-4.75, 0.71)	
Yes	16.7 (17.0)	21.5 (31.4)	-4.89 (-13.7, 3.9)	0.53
Baseline iron deficiency				
No	16.7 (13.4)	21.1 (29.8)	-4.16 (-7.46, -0.86)	
Yes	12.4 (12.4)	11.2 (10.1)	1.19 (-2.88, 5.27)	0.05
Baseline iron deficiency anemia				
No	15.6 (13.7)	18.3 (26.4)	-2.65 (-5.49, 0.19)	
Yes	11.6 (8.80)	11.83 (11.9)	0.19 (-6.14, 6.52)	0.42
Baseline calcium intake <800 mg/day				
No	16.1 (12.8)	17.0 (15.9)	-0.75 (-5.52, 4.01)	
Yes	14.6 (13.6)	17.8 (28.4)	-3.13 (-6.44, 0.16)	0.42
Baseline iron intake <27 mg/day				
No	13.7 (15.3)	18.9 (13.3)	-4.45 (-11.7, 2.76)	
Yes	15.3 (13.0)	17.3 (26.7)	-2.02 (-4.96, 0.92)	0.54
Calcium adherence 75 <sup>th</sup> percentile				
No	14.7 (12.9)	17.3 (26.3)	-2.46 (-5.48, 0.56)	
Yes	15.7 (13.8)	17.3 (19.1)	-1.29 (-6.46, 3.88)	0.70
Iron adherence 75 <sup>th</sup> percentile				
No	14.5 (12.7)	17.2 (27.6)	-2.58 (-5.79, 0.63)	
Yes	15.8 (13.9)	17.3 (16.9)	-1.46 (-5.93, 3.01)	0.68

\*Mean differences adjusted for facilities.

Supplemental table 9. Effect modifications of anemia (haemoglobin <11 g/dl) at 32 weeks of gestation in Tanzania trial (reference group: 1500 mg calcium arm)

	500 mg Calcium n/N (%)	1500 mg Calcium n/N (%)	Relative risk* (95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	1077/2482 (43.4)	1102/2491 (44.2)	0.98 (0.91, 1.07)	
Yes	1048/1768 (59.3)	1011/1755 (57.6)	1.02 (0.94, 1.11)	0.54
Baseline moderate to severe anemia				
No	1744/3679 (47.4)	1758/3684 (47.7)	0.99 (0.93, 1.06)	
Yes	381/571 (66.7)	355/562 (63.2)	1.05 (0.91, 1.21)	0.50
Baseline iron deficiency				
No	106/266 (39.9)	104/273 (38.1)	1.04 (0.80, 1.35)	
Yes	77/180 (42.8)	92/172 (53.5)	0.82 (0.61, 1.10)	0.18
Baseline iron deficiency anemia				
No	142/371 (38.3)	149/369 (40.4)	0.95 (0.76, 1.20)	
Yes	41/75 (54.7)	47/76 (69.8)	0.89 (0.58, 1.36)	0.78
Baseline calcium intake <800 mg/day				
No	591/1258 (46.9)	626/1259 (49.7)	0.95 (0.85, 1.07)	
Yes	1311/2590 (50.6)	1280/2594 (49.3)	1.02 (0.95, 1.10)	0.28
Baseline iron intake <27 mg/day				
No	321/617 (52.0)	306/646 (47.4)	1.10 (0.94, 1.29)	
Yes	1581/3231 (48.9)	1600/3207 (49.9)	0.98 (0.92, 1.05)	0.18
Calcium adherence 75 <sup>th</sup> percentile				
No	1594/3131 (50.9)	1564/3101 (50.4)	1.01 (0.94, 1.08)	
Yes	531/1119 (47.5)	549/1145 (47.9)	0.98 (0.88, 1.12)	0.76
Iron adherence 75 <sup>th</sup> percentile				
No	1589/3129 (50.8)	1581/3136 (50.4)	1.00 (0.93, 1.08)	
Yes	536/1121 (47.8)	532/1110 (47.9)	1.01 (0.90, 1.14)	0.90

\*Relative risk adjusted for facilities.

Supplemental table 10. Effect modifications of moderate to severe anemia (haemoglobin <10 g/dl) at 32 weeks of gestation in Tanzania trial (reference group: 1500 mg calcium arm)

	500 mg Calcium n/N (%)	1500 mg Calcium n/N (%)	Relative risk* (95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	343/2482 (13.8)	357/2491 (14.3)	0.97 (0.85, 1.11)	
Yes	457/1768 (25.9)	476/1755 (27.1)	0.94 (0.85, 1.05)	0.65
Baseline moderate to severe anemia				
No	607/3679 (16.5)	632/3684 (17.2)	0.97 (0.87, 1.08)	
Yes	193/571 (33.8)	201/562 (35.8)	0.93 (0.76, 1.13)	0.71
Baseline iron deficiency				
No	23/266 (8.6)	30/273 (10.9)	0.81 (0.47, 1.40)	
Yes	35/180 (19.4)	44/172 (25.6)	0.74 (0.47, 1.15)	0.79
Baseline iron deficiency anemia				
No	37/371 (9.9)	49/369 (13.2)	0.76 (0.49, 1.16)	
Yes	21/75 (28.0)	25/76 (32.9)	0.85 (0.47, 1.53)	0.73
Baseline calcium intake <800 mg/day				
No	235/1258 (18.7)	267/1259 (21.2)	0.90 (0.76, 1.07)	
Yes	473/2590 (18.3)	483/2594 (18.6)	0.97 (0.85, 1.10)	0.51
Baseline iron intake <27 mg/day				
No	122/617 (19.8)	127/646 (19.7)	1.02 (0.79, 1.30)	
Yes	586/3231 (18.1)	623/3207 (19.4)	0.94 (0.84, 1.04)	0.55
Calcium adherence 75 <sup>th</sup> percentile				
No	497/2704 (18.4)	506/2675 (18.9)	0.98 (0.86, 1.10)	
Yes	303/1546 (19.6)	327/1571 (20.8)	0.94 (0.81, 1.10)	0.74
Iron adherence 75 <sup>th</sup> percentile				
No	601/3129 (19.2)	601/3136 (19.2)	0.99 (0.89, 1.11)	
Yes	199/1121 (17.8)	232/1110 (20.9)	0.88 (0.73, 1.06)	0.26

\*Relative risks were adjusted for facilities.

Supplemental table 11. Effect modifications of iron deficiency (CRP adjusted serum ferritin <15 mcg/dl) at 32 weeks of gestation in Tanzania trial (reference group: 1500 mg calcium arm)

	500 mg Calcium n/N (%)	1500 mg Calcium n/N (%)	Relative risk* (95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	197/289 (68.2)	181/284 (63.7)	1.07 (0.87, 1.30)	
Yes	89/151 (58.9)	105/158 (66.5)	0.88 (0.67, 1.17)	0.27
Baseline moderate to severe anemia				
No	256/393 (65.1)	265/409 (64.8)	0.99 (0.84, 1.19)	
Yes	30/47 (63.8)	21/33 (63.6)	1.02 (0.58, 1.77)	0.96
Baseline iron deficiency				
No	152/262 (58.0)	152/271 (56.1)	1.02 (0.82, 1.28)	
Yes	134/178 (75.3)	134/171 (78.4)	0.96 (0.76, 1.22)	0.73
Baseline iron deficiency anemia				
No	231/367 (62.9)	228/367 (62.1)	1.01 (0.84, 1.21)	
Yes	55/73 (75.3)	58/75 (77.3)	0.96 (0.67, 1.39)	0.82
Baseline calcium intake <800 mg/day				
No	87/137 (63.5)	87/137 (61.3)	0.96 (0.71, 1.29)	
Yes	185/282 (65.6)	184/287 (64.1)	1.02 (0.83, 1.25)	0.71
Baseline iron intake <27 mg/day				
No	44/57 (77.2)	34/64 (53.1)	1.39 (0.89, 2.19)	
Yes	225/362 (62.3)	237/360 (65.8)	0.95 (0.78, 1.13)	0.11
Calcium adherence 75 <sup>th</sup> percentile				
No	216/329 (65.6)	212/328 (64.6)	1.01 (0.83, 1.22)	
Yes	70/111 (63.1)	74/114 (64.9)	0.96 (0.69, 1.33)	0.77
Iron adherence 75 <sup>th</sup> percentile				
No	194/285 (68.1)	198/298 (66.4)	1.02 (0.83, 1.23)	
Yes	92/155 (59.4)	88/144 (61.1)	0.97 (0.72, 1.30)	0.79

\*Relative risks were adjusted for facilities.

Supplemental table 12. Effect modifications of iron deficiency anemia (haemoglobin <11 g/dl and CRP adjusted serum ferritin <15 mcg/dl) at 32 weeks of gestation in Tanzania trial (reference group: 1500 mg calcium arm)

	500 mg Calcium n/N (%)	1500 mg Calcium n/N (%)	Relative risk* (95% CI)	P values for interaction from likelihood ratio tests
Baseline anemia				
No	76/289 (26.3)	83/284 (29.2)	0.90 (0.66, 1.23)	
Yes	51/151 (33.7)	53/158 (33.5)	1.00 (0.68, 1.48)	0.67
Baseline moderate to severe anemia				
No	108/393 (27.5)	125/409 (30.6)	0.90 (0.70, 1.17)	
Yes	19/47 (40.4)	11/33 (33.3)	1.24 (0.59, 2.63)	0.42
Baseline iron deficiency				
No	62/262 (23.7)	66/271 (24.4)	0.97 (0.69, 1.37)	
Yes	65/178 (36.5)	70/171 (40.9)	0.90 (0.65, 1.27)	0.78
Baseline iron deficiency anemia				
No	92/367 (25.1)	102/367 (27.8)	0.90 (0.68, 1.20)	
Yes	35/73 (47.9)	34/75 (45.3)	1.05 (0.65, 1.68)	0.61
Baseline calcium intake <800 mg/day				
No	34/137 (24.8)	40/137 (29.2)	0.85 (0.54, 1.34)	
Yes	83/282 (29.4)	91/287 (31.7)	0.94 (0.70, 1.26)	0.71
Baseline iron intake <27 mg/day				
No	19/57 (33.3)	17/64 (26.5)	1.24 (0.64, 2.41)	
Yes	98/362 (27.1)	114/360 (31.7)	0.85 (0.66, 1.13)	0.31
Calcium adherence 75 <sup>th</sup> percentile				
No	105/329 (31.9)	102/328 (31.1)	1.00 (0.79, 1.37)	
Yes	22/111 (19.8)	34/114 (29.8)	0.64 (0.37, 1.09)	0.11
Iron adherence 75 <sup>th</sup> percentile				
No	94/285 (32.9)	102/298 (34.2)	0.97 (0.73, 1.27)	
Yes	33/155 (21.2)	34/144 (23.6)	0.89 (0.55, 1.45)	0.79

\*Relative risks were adjusted for facilities.