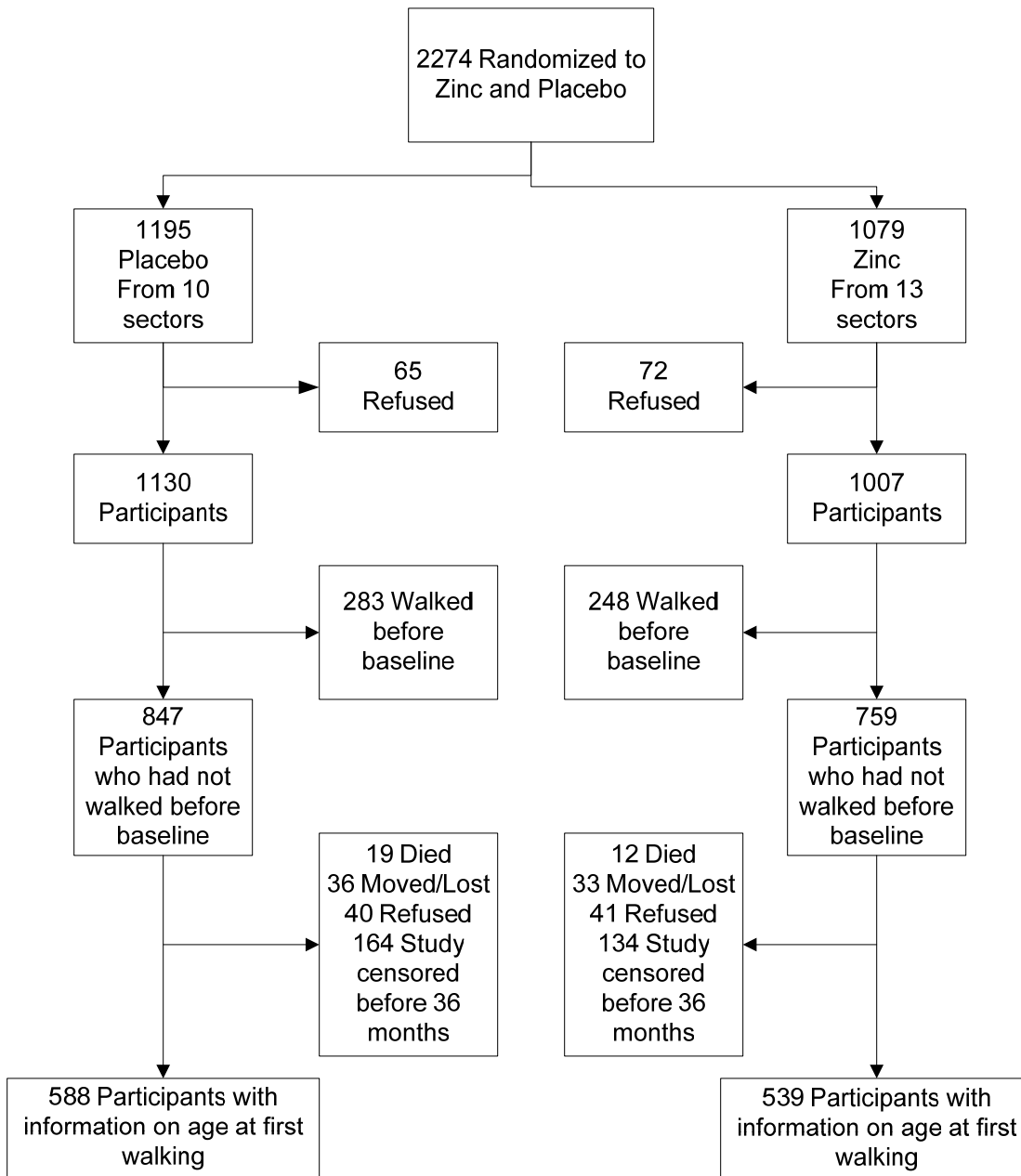
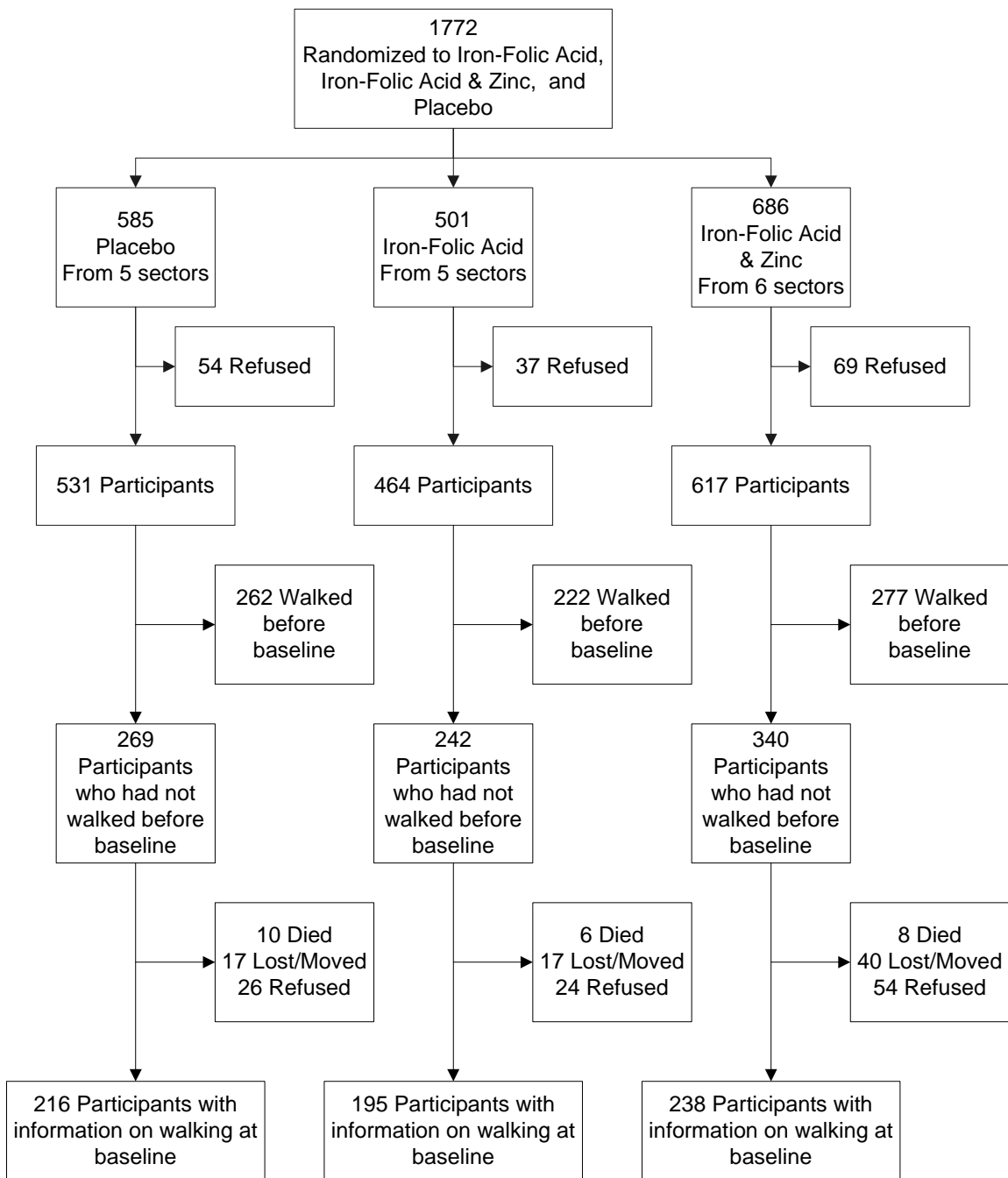


Supplemental Figure 1. Consort diagram of children assigned zinc and placebo



Supplemental Figure 2. Consort diagram of children assigned placebo, iron+folic acid alone, iron+folic acid and zinc



Online Supplemental Materials

Supplemental Table 1. Baseline comparability between zinc and placebo groups¹

Variables		Placebo	Zinc
<i>n</i>		588	538 *
Age (mo)			
	1-5	494 (84.0)	465 (86.4)
	6-11	61 (10.4)	58 (10.8)
	12-23	33 (5.6)	15 (2.8)
Sex			
	Male	304 (51.7)	269 (50.0)
	Female	284 (48.3)	269 (50.0)
Ethnic Group			
	Pahadi	74 (12.6)	100 (18.6)
	Madeshi	509 (86.7)	436 (81.2)
Caste			
	Brahmin	28 (4.8)	29 (5.4)
	Chhetri	10 (1.7)	33 (6.2)
	Vaiysha	312 (53.2)	380 (70.8)
	Shudra	77 (13.1)	52 (9.7)
	Muslim/Other	160 (27.3)	43 (8.0)
Paternal Literacy		276 (52.3)	285 (58.4)
Maternal Literacy		104 (19.7)	114 (23.4)
Paternal Occupation			
	Farmer	178 (33.7)	238 (48.8)
	Laborer	226 (42.8)	132 (27.1)
	Business	81 (15.3)	54 (11.1)
	Private Service	27 (5.1)	31 (6.4)
	Government	8 (1.5)	14 (2.9)
	None	6 (1.1)	14 (2.9)
Prior Child Mortality			
	Rate/1000 live births	89.1 (190.7)	94.8 (184.0)
	≥1 prior child deaths	131 (24.9)	112 (23.2)
Electricity in House		177 (30.2)	121 (22.5)
Ownership			
	Bicycle	303 (51.6)	324 (60.3)
	Cart	66 (11.2)	92 (17.1)
	Radio	129 (22.00)	173 (32.2)
	TV	118 (20.1)	108 (20.1)
	khet-Paddy farm land	258 (44.4)	266 (51.6)
	Bari-Non-paddy farm land	108 (18.6)	113 (21.9)
	Cattle	328 (55.8)	373 (69.3)
	Goats	254 (43.2)	211 (39.2)
House Wall Material			
	None	2 (0.3)	0 (0.0)
	Thatch	48 (8.2)	101 (18.8)
	Mud	464 (79.1)	370 (68.9)
	Wood	13 (2.2)	26 (4.8)
	Concrete	60 (10.2)	40 (7.5)
House Roof Material			
	None	6 (1.0)	0 (0.0)
	Thatch	56 (9.5)	45 (8.4)
	Tile/Tin	507 (86.4)	481 (89.6)
	Concrete	18 (3.1)	11 (2.1)
Latrine at House		40 (6.8)	33 (6.2)
Water Source			
	Tube well	581 (99.0)	467 (87.0)
	Ring well	6 (1.0)	70 (13.0)

¹ Values are n (%)

* One child was missing demographic and socioeconomic data

Online Supplemental Materials

Supplemental Table 2. Distribution and numbers of tablets consumed by zinc and placebo groups among those not yet walking at the start of the trial¹

	Placebo	Zinc
All enrolled children	588	539
Tablets consumed		
0-59	100 (17.0)	75 (13.9)
60-179	79 (13.4)	109 (20.2)
180-364	283 (48.1)	265 (49.2)
> 364	126 (21.4)	90 (16.7) (<i>P</i> =0.005) ²
Mean±SD	246.4±145.1	235.5±134.4
Median % of total possible tablets consumed (IQR)	72.6 (45.4-86.0)	67.9 (41.0-82.7)
Infants < 12 mo at entry	555	523
Tablets consumed		
0-59	71 (12.8)	63 (12.0)
60-179	75 (13.5)	106 (20.2)
180-364	283 (51.0)	265 (50.6)
> 364	126 (22.7)	90 (17.2) (<i>P</i> =0.009) ²
Mean±SD	260.0±137.7	241.7±131.1
Median % of total possible tablets consumed (IQR)	74.9 (50.8-86.6)	68.6 (45.1-83.0)

¹ Values are n (%), means ±SD, or median % of total possible tablets consumed (interquartile range)

² Chi-square comparison of distributions of tablet consumption between placebo and zinc groups

Online Supplemental Materials

Supplemental Table 3: Mean ages at first sitting unassisted, running, jumping, and standing on one leg, and % > than 8, 24, 30, and 30 mo of age, respectively, at which these milestones were first attained among children having not yet attained them at baseline among zinc and placebo treatment groups¹

Treatment Group	n	Age, d	Mean Difference (95% CI)		>18 mo, n (%)	Relative Risk (95% CI)	
			Crude	Adjusted		Crude	Adjusted
Sitting unassisted							
Placebo	299	209.0±30.1			43 (14.3)		
Zinc	330	205.8±34.0	-3.3 (-8.3, 1.8)	-3.4 (-8.7, 2.0)	43 (13.0)	0.91 (0.61, 1.34)	0.85 (0.55, 1.30)
Running							
Placebo	548	551.8±113.8			37 (6.8)		
Zinc	545	559.6±125.8	7.7 (-6.5, 22.0)	9.7 (-4.5, 23.9)	42 (7.7)	1.14 (0.75, 1.75)	1.18 (0.74, 1.88)
Jumping							
Placebo	450	715.5±151.3			58 (12.9)		
Zinc	446	705.9±155.1	-9.6 (-29.7, 10.5)	-12.4 (-31.0, 6.3)	53 (11.9)	0.92 (0.65, 1.31)	0.87 (0.63, 1.20)
Standing on one leg							
Placebo	534	757.9±148.2			89 (16.7)		
Zinc	550	747.1±148.0	-10.8 (-28.4, 6.9)	-3.5 (-20.2, 13.1)	84 (15.3)	0.92 (0.70, 1.20)	1.02 (0.79, 1.33)

¹ Values are means ±SD, means difference (95% CI), n (%), or relative risk (95% CI)

All adjusted differences and relative risks adjusted for ethnicity, assets, maternal literacy, prior child deaths using Generalized Estimating Equations (GEE).

Online Supplemental Materials

Supplemental Table 4. Baseline comparability between placebo, iron+folic acid alone, and iron+folic acid and zinc

Variables	Placebo	Iron+folic Acid	Iron+folic Acid & Zinc
<i>n</i>	216	195	238
	n (%)	n (%)	n (%)
Age (mo)			
1-5	127 (58.8)	110 (56.4)	148 (62.2)
6-11	56 (25.9)	60 (30.8)	63 (26.5)
12-23	33 (15.3)	25 (12.82)	27 (11.3)
Sex			
Male	111 (51.4)	108 (55.4)	130 (54.2)
Female	105 (48.6)	87 (44.6)	108 (45.4)
Ethnic Group			
Pahadi	26 (12.0)	16 (8.2)	34 (14.3)
Madeshi	188 (87.0)	177 (90.8)	202 (84.9)
Caste			
Brahmin	10 (4.6)	7 (3.6)	4 (1.7)
Chhetri	2 (0.9)	0 (0.0)	16 (6.7)
Vaiysha	113 (52.3)	120 (61.5)	144 (60.5)
Shudra	24 (11.1)	51 (26.2)	37 (15.6)
Muslim/Other	67 (31.0)	17 (8.7)	37 (15.6)
Paternal Literacy	79 (50.3)	77 (50.0)	95 (51.4)
Maternal Literacy	26 (16.6)	22 (14.2)	35 (18.9)
Paternal Occupation			
Farmer	50 (31.9)	62 (40.3)	66 (35.7)
Laborer	67 (42.7)	63 (40.9)	64 (34.6)
Business	27 (17.2)	13 (8.4)	29 (15.7)
Private Service	9 (5.7)	12 (7.8)	20 (10.8)
Government	1 (0.6)	1 (0.7)	4 (2.2)
None	3 (1.9)	1 (0.7)	2 (1.1)
Prior Child Mortality			
Rate/1000 live births	107.7 (192.5)	113.5 (194.4)	113.2 (171.5)
≥1 prior child deaths	44 (28.0)	44 (28.6)	65 (35.1)
Electricity in House	71 (32.9)	55 (28.2)	72 (30.3)
Ownership			
Bicycle	107 (49.5)	84 (43.1)	104 (43.7)
Cart	23 (10.7)	15 (7.7)	19 (8.0)
Radio	46 (21.3)	37 (19.0)	57 (24.0)
TV	37 (17.1)	32 (16.4)	55 (23.1)
khet-Paddy farm land	92 (43.2)	63 (32.8)	78 (33.2)
Bari-Non-paddy farm land	31 (14.6)	43 (22.3)	52 (22.0)
Cattle	122 (56.5)	84 (43.1)	116 (48.7)
Goats	90 (41.7)	80 (41.0)	109 (45.8)
House Wall Material			
None	1 (0.5)	0 (0.0)	1 (0.4)
Thatch	12 (5.6)	47 (24.1)	37 (15.6)
Mud	177 (81.9)	138 (70.8)	161 (67.7)
Wood	5 (2.3)	0 (0.0)	10 (4.2)
Concrete	21 (9.7)	10 (5.1)	29 (12.2)
House Roof Material			
None	3 (1.4)	0 (0.0)	1 (0.4)
Thatch	19 (8.8)	38 (19.5)	39 (16.4)
Tile/Tin	190 (88.0)	154 (79.0)	187 (78.6)
Concrete	4 (1.9)	3 (1.5)	11 (4.6)
Latrine at House	13 (6.0)	7 (3.6)	21 (8.8)
Water Source			
Tube well	215 (99.5)	190 (97.4)	231 (97.1)
Ring well	1 (0.5)	5 (2.6)	7 (2.9)

Online Supplemental Materials

Supplemental Table 5. Distribution and numbers of tablets consumed by iron+folic acid, iron+folic acid and zinc, and placebo groups among those not yet walking at the start of the trial¹

	Placebo	Iron+Folic Acid	Iron+Folic Acid & Zinc
All enrolled children	216	195	238
Tablets consumed			
0-59	87 (40.3)	68 (34.9)	72 (30.3)
60-179	43 (19.9)	52 (26.7)	60 (25.2)
180-364	78 (36.1)	66 (33.9)	92 (38.7)
> 364	8 (3.7)	9 (4.6) (p=0.37) ²	14 (5.9) (p=0.11) ³
Mean±SD	142.1±130.3	138.1±118.8	163.3±130.6
Median % of total possible tablets consumed (IQR)	45.5 (8.6-68.8)	40.0 (13.3-63.5)	53.2 (18.5-74.1)
Infants < 12 mo at entry	183	170	211
Tablets consumed			
0-59	58 (31.7)	43 (25.3)	50 (23.7)
60-179	39 (21.3)	52 (30.6)	56 (26.5)
180-364	78 (42.6)	66 (38.8)	91 (43.1)
> 364	8 (4.4)	9 (5.3) (p=0.20) ²	14 (6.6) (p=0.23) ³
Mean±SD	164.4±128.8	157.5±114.9	180.5±127.8
Median % of total possible tablets consumed (IQR)	52.1 (14.3- 72.7)	45.7 (22.2-64.2)	57.5 (27.6-77.3)

¹ Values are n (%), means ±SD, or median % of total possible tablets consumed (interquartile range)

² Chi-square comparison of distributions of tablet consumption between placebo and iron+folic acid groups

³ Chi-square comparison of distributions of tablet consumption between placebo and iron+folic acid and zinc groups

Online Supplemental Materials

Supplemental Table 6: Mean ages at first sitting unassisted, running, jumping, and standing on one leg, and % > than 8, 24, 30, and 30 mo of age, respectively, at which these milestones were first attained among children having not yet attained them at baseline among iron+folic acid, iron+olic acid and zinc, and placebo treatment groups¹

Treatment Group	n	Age, d	Mean Difference (95% CI)		>18 mo, n (%)	Relative Risk (95% CI)	
			Crude	Adjusted		Crude	Adjusted
Sitting unassisted							
Placebo	107	210.6±32.9			22 (20.6)		
Iron+folic acid	99	214.1±35.0	3.5 (-5.9, 12.8)	0.5 (-10.3, 11.2)	21 (21.2)	1.03 (0.61, 1.76)	0.80 (0.44, 1.47)
Iron-folic acid and zinc	123	211.4±36.1	0.8 (-8.3, 9.8)	-2.3 (-12.2, 7.6)	23 (18.7)	0.91 (0.54, 1.54)	0.62 (0.33, 1.17)
Running							
Placebo	219	564.1±117.0			20 (9.1)		
Iron+folic acid	194	559.3±106.0	4.9 (-26.5, 16.9)	-1.9 (-24.1, 20.3)	13 (6.7)	0.73 (0.38, 1.44)	0.72 (0.33, 1.58)
Iron+folic acid and zinc	243	551.9±122.0	-12.3 (-34.2, 9.7)	5.8 (-15.6, 27.2)	25 (10.3)	1.13 (0.64, 1.97)	1.22 (0.63, 2.34)
Jumping							
Placebo	194	744.0±160.3			33(17.0)		
Iron+folic acid	179	733.8±146.3	-10.2 (-41.5, 21.2)	-12.9 (-40.0, 14.1)	25(14.0)	0.82 (0.51, 1.32)	0.79 (0.50, 1.24)
Iron+folic acid and zinc	251	723.5±141.9	-20.5 (-48.7, 7.7)	5.8 (-18.76, 30.2)	28(11.26)	0.66 (0.41, 1.05)	0.84 (0.57, 1.25)
Standing on one leg							
Placebo	231	794.8±140.1			53 (22.9)		
Iron+folic acid	181	825.0±154.7	30.3 (-1.6, 58.9)	18.8 (-6.3, 44.0)	57 (31.4)	1.37 (1.00, 1.89)	1.23 (0.76, 1.99)
Iron+folic acid and zinc	327	778.6±162.5	-16.2 (-42.1, 9.8)	-0.8 (-22.4, 20.7)	79 (24.2)	1.05 (0.78, 1.43)	0.97 (0.60, 1.54)

¹ Values are means ±SD, means difference (95% CI), n (%), or relative risk (95% CI)

All adjusted differences and relative risks adjusted for ethnicity, assets, maternal literacy, prior child deaths using Generalized Estimating Equations (GEE).