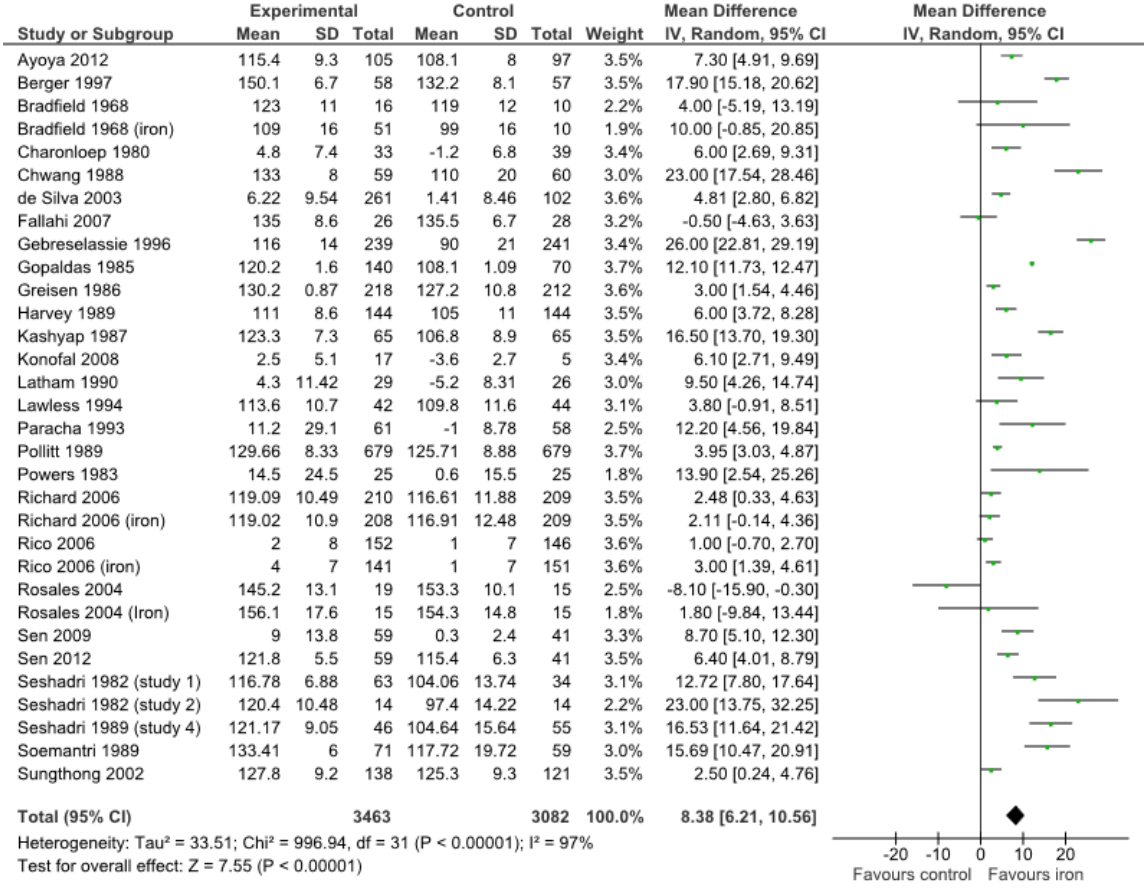
Appendix 5: Hematologic and iron indices

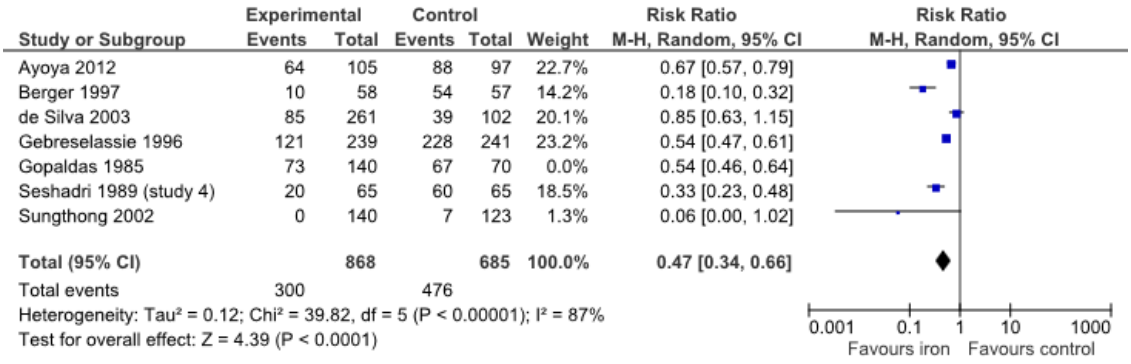
Iron supplementation improved (A) hemoglobin (MD 8.38g/L [6.21 to 10.56g/L], p<0.00001, I^2=97%; 28 studies, 6545 children), (B) anemia (RR 0.50 [0.39 to 0.64], p<0.00001, I^2=85%; 7 studies, 1763 children), (C) ferritin (MD 28.45µg/L [18.03-38.86], p<0.00001, I^2=98%, 12 studies, 3611 children) and (D) iron deficiency (RR 0.21 [0.07 to 0.63], p<0.00001, I^2=85%, 4 studies, 1020 children). Forest plot for effect of iron on Funnel plots for effect of daily oral iron on (E) hemoglobin and (F) ferritin both showing no evidence of publication bias. Inverse Variance. M-H: Mantel-Haenszel. Random: Random Effects. 95% CI: 95% Confidence Interval. Df: degrees of freedom.

A



Appendix to: Low M, Farrell A, Biggs B-A, et al. Effects of daily iron supplementation in primary-school–aged children: systematic review and meta-analysis of randomized controlled trials. *CMAJ* 2013. DOI:10.1503/cmaj.130628. Copyright © 2013 Canadian Medical Association or its licensors.

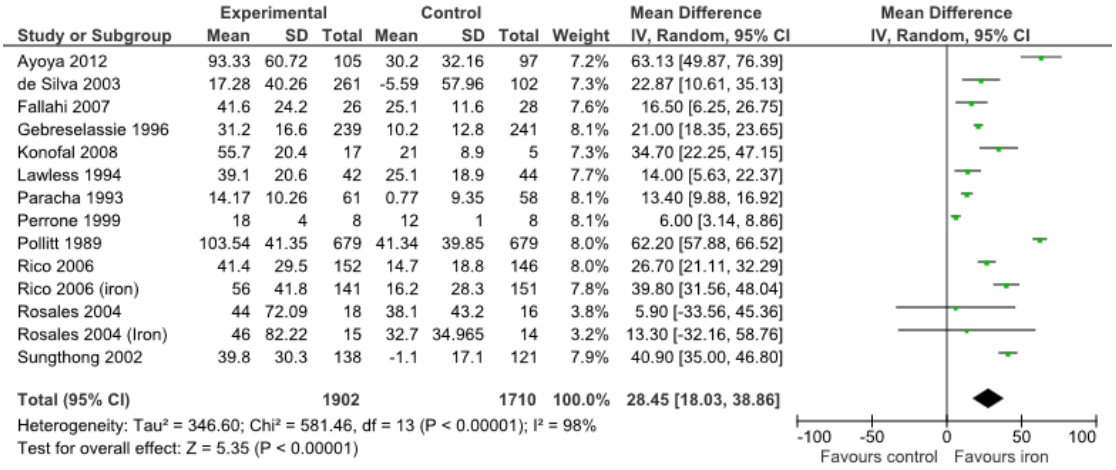
B



Study or Subgroup	Experimental Events	Experimental Total	Control Events	Control Total	Weight	Risk Ratio M-H, Random, 95% CI
Ayoya 2012	64	105	88	97	22.7%	0.67 [0.57, 0.79]
Berger 1997	10	58	54	57	14.2%	0.18 [0.10, 0.32]
de Silva 2003	85	261	39	102	20.1%	0.85 [0.63, 1.15]
Gebreselassie 1996	121	239	228	241	23.2%	0.54 [0.47, 0.61]
Gopaldas 1985	73	140	67	70	0.0%	0.54 [0.46, 0.64]
Seshadri 1989 (study 4)	20	65	60	65	18.5%	0.33 [0.23, 0.48]
Sungthong 2002	0	140	7	123	1.3%	0.06 [0.00, 1.02]
Total (95% CI)		**868**		**685**	**100.0%**	**0.47 [0.34, 0.66]**
Total events	300		476			

Heterogeneity: Tau² = 0.12; Chi² = 39.82, df = 5 (P < 0.00001); I² = 87%
Test for overall effect: Z = 4.39 (P < 0.0001)

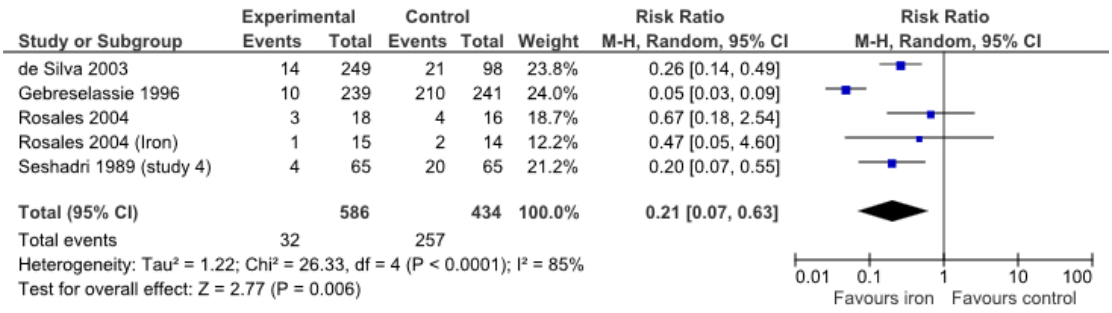
C



Study or Subgroup	Experimental Mean	Experimental SD	Experimental Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI
Ayoya 2012	93.33	60.72	105	30.2	32.16	97	7.2%	63.13 [49.87, 76.39]
de Silva 2003	17.28	40.26	261	-5.59	57.96	102	7.3%	22.87 [10.61, 35.13]
Fallahi 2007	41.6	24.2	26	25.1	11.6	28	7.6%	16.50 [6.25, 26.75]
Gebreselassie 1996	31.2	16.6	239	10.2	12.8	241	8.1%	21.00 [18.35, 23.65]
Konofal 2008	55.7	20.4	17	21	8.9	5	7.3%	34.70 [22.25, 47.15]
Lawless 1994	39.1	20.6	42	25.1	18.9	44	7.7%	14.00 [5.63, 22.37]
Paracha 1993	14.17	10.26	61	0.77	9.35	58	8.1%	13.40 [9.88, 16.92]
Perrone 1999	18	4	8	12	1	8	8.1%	6.00 [3.14, 8.86]
Pollitt 1989	103.54	41.35	679	41.34	39.85	679	8.0%	62.20 [57.88, 66.52]
Rico 2006	41.4	29.5	152	14.7	18.8	146	8.0%	26.70 [21.11, 32.29]
Rico 2006 (iron)	56	41.8	141	16.2	28.3	151	7.8%	39.80 [31.56, 48.04]
Rosales 2004	44	72.09	18	38.1	43.2	16	3.8%	5.90 [-33.56, 45.36]
Rosales 2004 (Iron)	46	82.22	15	32.7	34.965	14	3.2%	13.30 [-32.16, 58.76]
Sungthong 2002	39.8	30.3	138	-1.1	17.1	121	7.9%	40.90 [35.00, 46.80]
Total (95% CI)			**1902**			**1710**	**100.0%**	**28.45 [18.03, 38.86]**

Heterogeneity: Tau² = 346.60; Chi² = 581.46, df = 13 (P < 0.00001); I² = 98%
Test for overall effect: Z = 5.35 (P < 0.00001)

D



Study or Subgroup	Experimental Events	Experimental Total	Control Events	Control Total	Weight	Risk Ratio M-H, Random, 95% CI
de Silva 2003	14	249	21	98	23.8%	0.26 [0.14, 0.49]
Gebreselassie 1996	10	239	210	241	24.0%	0.05 [0.03, 0.09]
Rosales 2004	3	18	4	16	18.7%	0.67 [0.18, 2.54]
Rosales 2004 (Iron)	1	15	2	14	12.2%	0.47 [0.05, 4.60]
Seshadri 1989 (study 4)	4	65	20	65	21.2%	0.20 [0.07, 0.55]
Total (95% CI)		**586**		**434**	**100.0%**	**0.21 [0.07, 0.63]**
Total events	32		257			

Heterogeneity: Tau² = 1.22; Chi² = 26.33, df = 4 (P < 0.0001); I² = 85%
Test for overall effect: Z = 2.77 (P = 0.006)

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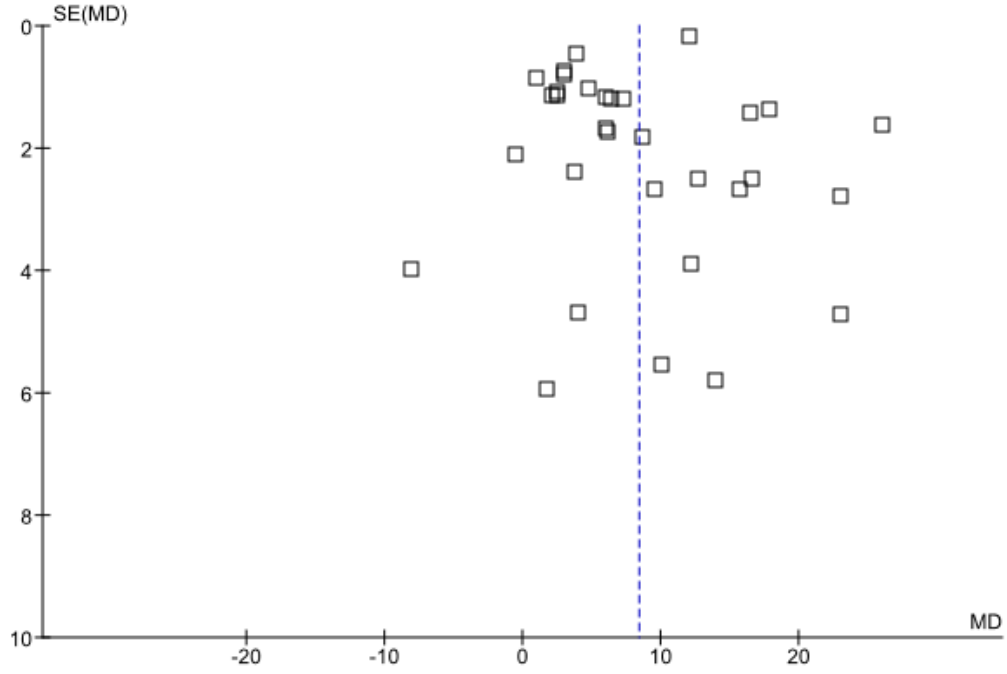
E



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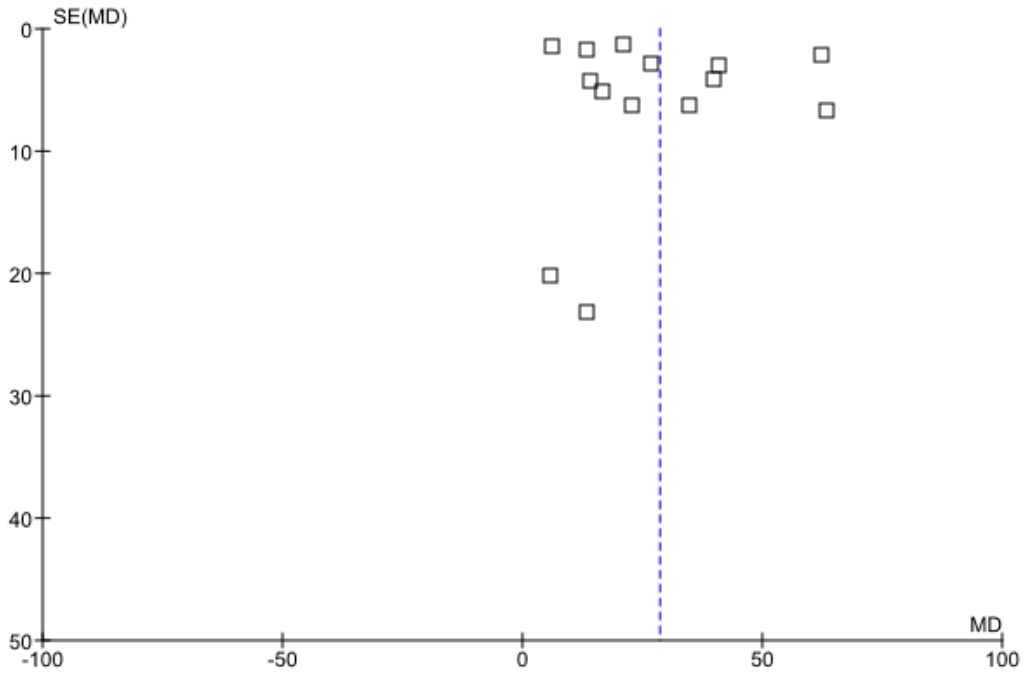
F



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