WEB APPENDIX 3 SUMMARY OF FINDINGS TABLES

A. Effect of Zinc Supplementation on Length/Height

Patient or population: Children under 5 years
Settings: Low and Middle Income Countries
Intervention: Zinc Supplementation versus No supplementation

Outcomes	**Illustrative comparative risks* (95% CI)**		**Relative effect (95% CI)**	**No of Participants (studies)**	**Quality of the evidence (GRADE)**	**Comments**
	Assumed risk	**Corresponding risk**				
	Control	**Zinc versus No Zinc**				
Length/Height for Age Z score (LAZ/HAZ)		The mean LAZ/HAZ in the intervention groups was **0 higher** (0.07 lower to 0.07 higher)		9165 (25 studies)	⨁⨁⨁⨀ **moderate**[1]	Probably leads to little or no difference in endline HAZ score. Among five additional trials not included in meta-analysis, three reported no significant difference while 2 reported higher HAZ with Zinc supplementation.
Change in LAZ/HAZ		The mean change in LAZ/HAZ in the intervention groups was **0.11 higher** (-.0.0 to 0.21 higher)		8852 (13 studies)	⨁⨁⨁⨀ **moderate**[2]	Probably leads to little increase in change in HAZ score.
Length/Height (cm)		The mean length/height in the intervention groups was **1.18 cm higher** (0.63 lower to 2.99 higher)		6303 (19 studies)	⨁⨁⨁⨀ **moderate**[3]	Probably leads to little or no difference in endline lenghth or height. Two additional trials, not included in the meta-analysis reported no significant difference in endline length/height.
Change in Length (cm)		The mean change in length in the intervention groups was **0.43 cm higher** (0.16 to 0.7 higher)		10783 (25 studies)	⨁⨁⨁⨁ **high**	Results in little increase in change in length.

% Height for Age		The mean % height for age in the intervention groups was **1.9 % higher** (1.01 to 2.79 % higher)		57 (1 study)	⨁⊖⊖⊖ **very low**[4,5]	It is uncertain whether Zinc supplementation increases height for age % because the certainty of the evidence is very low
Change in % Height for Age		The mean change % height for age in the intervention groups was **2.24% higher** (1.56 to 2.92 % higher)		57 (1 study)	⨁⊖⊖⊖ **very low**[4,5]	It is uncertain whether Zinc supplementation increases height for age % change because the certainty of the evidence is very low
***The basis for the assumed risk (e.g. the median control group risk across studies) is provided in footnotes. The corresponding risk (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval;**						
GRADE Working Group grades of evidence High quality: Further research is very unlikely to change our confidence in the estimate of effect. Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate. Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate. Very low quality: We are very uncertain about the estimate.						

[1] Downgraded by 1 for serious risk of bias. 15 trials had high risk of bias for attrition, 5 for other bias and one for baseline incomparability between clusters.
[2] Downgraded by 1 for serious risk of bias. 5 trials had unclear riak of bias for allocation concealment and blinding for outcome assessment, 5 were at high risk of bias for attrition
[3] Downgraded by 1 for serious risk of bias. Several trials were at high risk: one for random sequence generation, two for allocation concealment, two for blinding, 12 for attrition, 3 for other bias and one for baseline comparability of clusters.
[4] Downgraded by 2 for very serious indirectness. Only one trial with a small population from urban India the findings of which cannot be extrapolated to other countries and settings.
[5] Downgraded by 1 for imprecision; small sample size with wide 95% CI around the effect estimate.

B. Effect of Zinc Supplementation on Weight

Patient or population: Children under 5 years
Settings: Low and Middle Income Countries
Intervention: Zinc Supplementation versus No supplementation

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Zinc Supplementation versus No supplementation				
Weight for age Z score (WAZ)		The mean WAZ in the intervention groups was **0.05 Z higher** (0.03 lower to 0.13 higher)		9033 (23 studies)	⊕⊕⊕⊖ **moderate**[1]	Probably leads to little or no difference in endline WAZ score. Two additional trials also did not document any significant difference in WAZ in the Zinc supplemented group
Change in WAZ		The mean change in waz in the intervention groups was **0.03 higher** (0.01 lower to 0.08 higher)		8851 (13 studies)	⊕⊕⊕⊖ **moderate**[2]	Probably leads to little or no difference in change in WAZ score.
Weight (kg)		The mean weight in the intervention groups was **0.23 kg higher** (0.03 to 0.42 higher)		6293 (19 studies)	⊕⊕⊕⊖ **moderate**[3]	Probably leads to little increase in weight
Change in weight (kg)		The mean change in weight in the intervention groups was **0.11 kg higher** (0.05 to 0.17 higher)		10143 (23 studies)	⊕⊕⊕⊖ **moderate**[4]	Probably leads to little increase in change in weight
Rate of weight gain (g/kg/day)		The mean rate of weight gain in the intervention groups was **1.52 g/kg/day higher** (0.62 lower to 3.65 higher)		114 (2 studies)	⊕⊖⊖⊖ **very low**[5,6,7]	It is uncertain whether Zinc supplementation increases rate of weight gain because the certainty of the evidence is very low
% Weight for age		The mean % weight for age in the intervention groups		57 (1 study)	⊕⊖⊖⊖ **very low**[7,8]	It is uncertain whether Zinc supplementation increases weight for age % because the certainty

		was **3.9 higher** (1.72 to 6.08 higher)				of the evidence is very low
Change % Weight for Age		The mean change % weight for age in the intervention groups was **3.2 higher** (1.27 to 5.13 higher)		57 (1 study)	⨁⊖⊖⊖ **very low**[7,8]	It is uncertain whether Zinc supplementation increases weight for age % change because the certainty of the evidence is very low
***The basis for the assumed risk (e.g. the median control group risk across studies) is provided in footnotes. The corresponding risk (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval;**						
GRADE Working Group grades of evidence High quality: Further research is very unlikely to change our confidence in the estimate of effect. Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate. Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate. Very low quality: We are very uncertain about the estimate.						

[1] Downgraded by 1 for serious risk of bias. 14 trials had high risk of attrition bias, 4 had high risk of other bias and there was baseline imbalance in one cluster RCT
[2] Downgraded by 1 for serious risk of bias, 5 trials were at high risk of bias for attrition and 2 for other bias.
[3] Downgraded by 1 for serious risk of bias, 2 trials were at high risk for random sequence generation, 3 for allocation concealment, 2 for blinding, 12 for attrition, 2 for other bias and one for baseline comparability between clusters
[4] Downgraded by 1 for serious risk of bias, One trial was at high risk of bias for random sequence generation, one for allocation concealment, one for blinding, 11 for attrition and two for other bias
[5] Downgraded by 1 for serious risk of bias. Of the two included trials one was at high risk for random sequence generation and allocation concealment and the other had unclear risk of bias for random sequence generation, allocation concealment and blinding
[6] Downgraded by 1 for indirectness. Both trials from urban India with small datasets the conclusions of which cannot be extrapolated to other populations and settings
[7] Downgraded by 1 for imprecision. Small sample size with wide 95% CI around the effect estimate
[8] Downgraded by 2 for serious indirectness. Only one trial with a small population from urban India the findings of which cannot be extrapolated to other countries and settings.

C. Effect of Zinc Supplementation on Weight-for-Height and Mid Upper Arm Circumference

Patient or population: Children under 5 years
Settings: Low and Middle Income Countries
Intervention: Zinc Supplementation versus No supplementation

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Zinc Supplementation versus No supplementation				
Weight for Height Z score (WHZ)		The mean WHZ in the intervention groups was **0.03 Z higher** (0.02 lower to 0.08 higher)		8392 (19 studies)	⊕⊕⊕⊖ **moderate**[1]	Probably leads to little or no difference in endline WHZ score. Three additional trials also did not document any significant difference in WHZ in the Zinc supplemented group
Change in WHZ		The mean change in WHZ in the intervention groups was **0.01 Z higher** (0.03 lower to 0.04 higher)		8706 (12 studies)	⊕⊕⊕⊖ **moderate**[2]	Probably leads to little or no difference in change in WHZ score.
% Weight for Height		The mean % weight for height in the intervention groups was **0.7% higher** (0.81 lower to 2.21 higher)		57 (1 study)	⊕⊖⊖⊖ **very low**[3,4]	It is uncertain whether Zinc supplementation increases weight for height % because the certainty of the evidence is very low
Change % Weight for Height		The mean change % weight for height in the intervention groups was **1.17% higher** (0.09 lower to 2.43 higher)		57 (1 study)	⊕⊖⊖⊖ **very low**[3,4]	It is uncertain whether Zinc supplementation increases weight for height % because the certainty of the evidence is very low
Mid Upper Arm Circumference (MUAC; cm)		The mean MUAC in the intervention groups was **0 cm higher** (0.08 lower to 0.09 higher)		4236 (7 studies)	⊕⊕⊕⊖ **moderate**[5]	Probably leads to little or no difference in endline Mid Upper Arm Circumference.
Change in MUAC		The mean change in MUAC		1724	⊕⊕⊕⊖	Probably leads to little increase in Mid

(cm)		(cm) in the intervention groups was **0.09 cm higher** (0.01 to 0.16 higher)		(8 studies)	**moderate**[6]	Upper Arm Circumference change.
***The basis for the assumed risk (e.g. the median control group risk across studies) is provided in footnotes. The corresponding risk (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval;**						
GRADE Working Group grades of evidence High quality: Further research is very unlikely to change our confidence in the estimate of effect. Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate. Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate. Very low quality: We are very uncertain about the estimate.						

[1] Downgraded by 1 for serious risk of bias. 12 trials were at high risk of bias for attrition, 4 for other bias and one for baseline incomparability between clusters.
[2] Downgraded by 1 for serious risk of bias. 5 trials were at high risk of bias for attrition and 2 for other bias
[3] Downgraded by 2 for very serious indirectness. Only one trial with a small population from urban India, the findings of which cannot be extrapolated to other countries and settings.
[4] Downgraded by 1 for imprecision; small sample size with wide 95% CI around the effect estimate
[5] Downgraded by 1 for serious risk of bias. One trial was at high risk of bias for random sequence generation and allocation concealment, 5 for attrition and 2 for other bias.
[6] Downgraded by 1 for serious risk of bias. One trial was at high risk of bias for random sequence generation and allocation concealment, 2 for attrition and one for other bias.

D. Effect of Zinc Supplementation on Head Circumference, Stunting, Underweight and Wasting

Patient or population: Children under 5 years
Settings: Low and Middle Income Countries
Intervention: Zinc Supplementation versus No supplementation

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Zinc Supplementation versus No supplementation				
Head Circumference (cm)		The mean head circumference in the intervention groups was **0.39 cm higher** (0.03 to 0.75 higher)		2966 (6 studies)	⊕⊕⊕⊖ **moderate**[1]	Probably leads to little increase in head circumference
Change in Head Circumference (cm)		The mean change in head circumference in the intervention groups was **0.26 cm higher** (0.18 lower to 0.71 higher)		497 (4 studies)	⊕⊕⊕⊖ **moderate**[2]	Probably leads to little or no difference in change in head circumference
Change in head circumference z score (Z)		The mean change in head circumference z score in the intervention groups was **0.12 higher** (0.11 to 0.13 higher)		569 (1 study)	⊕⊕⊖⊖ **low**[3]	May leads to little increase in change in head circumference
Stunting	**Study population**		**RR 1** (0.95 to 1.06)	11838 (9 studies)	⊕⊕⊕⊖ **moderate**[4]	Probably leads to little or no difference in stunting
	stunting327 per 1000	**327 per 1000** (310 to 346)				
	Moderate					
	281 per 1000	**281 per 1000** (267 to 298)				
Underweight	**Study population**		**RR 0.94** (0.82 to 1.06)	8988 (7 studies)	⊕⊕⊕⊖ **moderate**[5]	Probably leads to little or no difference in underweight
	331 per 1000	**311 per 1000** (271 to 351)				
	Moderate					
	395 per 1000	**371 per 1000** (324 to 419)				

Wasting	**Study population**		**RR 1.08** (0.96 to 1.21)	8677 (7 studies)	⨁⨁⨁⊖ **moderate**[5]	Probably leads to little or no difference in wasting
	168 per 1000	**182 per 1000** (161 to 203)				
	Moderate					
	135 per 1000	**146 per 1000** (130 to 163)				
***The basis for the assumed risk (e.g. the median control group risk across studies) is provided in footnotes. The corresponding risk (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; RR: Risk ratio;**						
GRADE Working Group grades of evidence High quality: Further research is very unlikely to change our confidence in the estimate of effect. Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate. Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate. Very low quality: We are very uncertain about the estimate.						

[1] Downgraded by 1 for serious risk of bias. All included trials were at high risk of bias for attrition, one for blinding, one for attrition and one for baseline incomparability between clusters

[2] Downgraded by 1 for serious risk of bias. Three trials were at high risk of bias for attrition and one for other bias.

[3] Downgraded by 2 for very serious risk of bias. Only one trial from rural Nepal the findings of which cannot be extrapolated to other settings or populations.

[4] Downgraded by 1 for serious risk of bias. 4 trials were at high risk of bias for attrition, one for other bias and one for baseline incomparability between clusters.

[5] Downgraded by 1 for serious risk of bias. Three trials were at high risk of bias for attrition, one for other bias and one for baseline incomparability between clusters.