**Supplement Table 1 Summary of the original studies**

| **Study title** |
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|  | **KZN(28)** | **NW1(29)** | **NW2(30)** |
| **Aim of the study** | To investigate the effects of providing iron supplements and a mixture of DHA and EPA, alone and in combination, to children with poor iron and n-3 FA status. | To investigate the effect of African leafy vegetable consumption on iron, zinc and vitamin A status. | To investigate the effects of micronutrients and sugar, alone and in combination in a beverage, on growth and cognitive function in schoolchildren. |
| **Data of study, year** | 2009 - 2010 | 2012 | 2011 |
| **Study site** | 4 primary schools in a rural low socio-economic area of KZN | 2 primary farm schools in low socio-economic area in NW | 3 primary schools in a peri-urban low socio-economic area of area in NW |
| **Number of participants**  | *n* 321  | *n* 167 | *n* 556 |
| **Age, years (baseline point)** | 6–11 | 6–12 | 5-11 |
| **Study design** | Randomized, double-blind, placebo-controlled trial | Randomized controlled trial | Randomised, double-blind, controlled trial |
| **Dietary intake assessment** | 3 x 24-hour recalls (*n* 102)Assessed on different days of the week: two weekdays and one weekend day | 3 x 24-hour recalls (*n* 100)Administered at one week apart on different days of the week: two weekdays and one weekend day | 3 x 24-hour recalls (*n* 376)Assessed on different days of the week: two weekdays and one weekend day |
| **Ethical approval**  | Ethics Committee of the ETH Zürich and the North-West University NWU (NWU-00033-09-A1) | Ethics Committee of North-West University (NWU-00061-08-A1)  | Ethics Committee of the North‐West University (NWU-00065-09-A1) |

DHA - docosahexaenoic acid; EPA - eicosapentaenoic acid; ETA – eicosatetraenoic acid; FA – fatty acid; FeFA – Ferrum (iron) and fatty acids; KZN – KwaZulu-Natal province; NW1 – North West province, Potchefstroom area; NW2 – North West province, Klerksdorp area.