Objective. The objective of this analysis was to test the impact of daily supplementation with multiple micronutrients (MM) during pregnancy on Zn, vitamin A and folate status compared to iron only (Fe). Material and Methods. The study was carried out during 1997-2000 in a semi-urban community in Morelos state, Mexico. Women were randomly assigned to MM (n= 249) or Fe (n= 258) and received supplements daily (6 d/wk) under supervision by the field team from recruitment (approximately 9 weeks pregnancy) until delivery. Blood samples were collected on a sub-sample of women at baseline, 32 weeks pregnancy and one month postpartum (1PP) and assessed for serum zinc, retinol and whole blood folate (baseline and 1PP only). A breast milk sample was extracted at 1PP and assessed for retinol content. Result. At baseline there was no significant difference between supplementation groups in mean Zn, retinol or folate concentrations or the prevalence of deficiencies (Zn 12.2%, vitamin A 2.8%, folate 5.3%). Mean change in Zn and retinol concentrations from baseline to 32 weeks pregnancy did not differ between groups or between baseline and 1PP for Zn, retinol or folate. At 1PP, there was a tendency (p= 0.09) towards a lower prevalence of folate deficiency/depletion in the MM group (10.0%) than the Fe group (18.5%). Conclusions. MM supplementation during pregnancy did not improve zinc or vitamin A status compared to Fe only. There is some indication that folate status may have improved with MM supplementation despite low prevalence of deficiency. While lack of response in serum retinol may be explained by generally adequate status, the lack of impact on zinc status requires further exploration.

Palabras clave
Zinc, retinol, folic acid, randomized controlled trial, dietary supplements, Mexico.