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Role of Young Child Formula in Toddler Nutrition

Micronutrient Deficiencies and Inadequacies in the Middle East

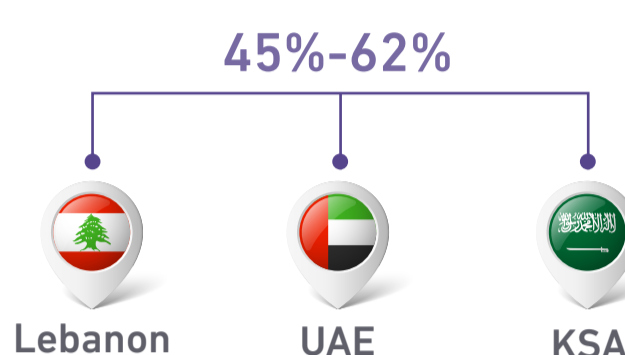
Micronutrient deficiencies and inadequacies constitute a global health issue, particularly among countries in the Middle East.¹

Vitamin D deficiency & insufficiency¹

25-hydroxyvitamin D (25(OH)D) serum level of <50 nmol/L

Despite abundant, year-long sunshine in the Middle East, vitamin D deficiency and inadequacy is prevalent due, in large part, to traditional clothing covering most of the body and the lack of foods rich in, or fortified with, vitamin D.¹

The highest prevalence of vitamin D deficiency and insufficiency among children and adolescents in the Middle East was reported in:¹



Iron deficiency anemia (IDA)²

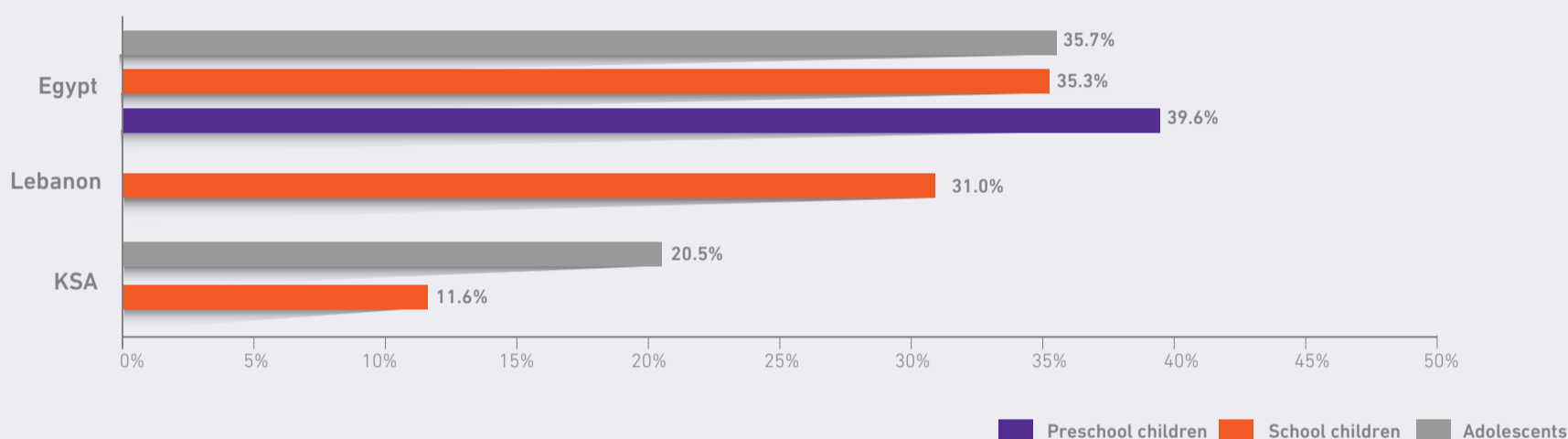


Children 6 months – 4 years

Hemoglobin <110g/L

Anemia is the most prevalent nutritional disorder among children in the Middle East and North Africa region.¹

Prevalence of anemia in the Middle East by school age¹



According to WHO, inadequate intakes or status of calcium, iodine, iron, and zinc as well as vitamin A, vitamin D, and folate are commonly reported by many countries in the Middle East.¹

The contribution of milks and formulae to micronutrient intake in 1-3 years old children

- Randomized, double-blind controlled trial³
- 318 healthy children German, Dutch, and English aged 1–3 y³



Receiving Young Child Formula (YCF)
(1.2 mg Fe/100 mL; 1.7 mg vitamin D/100 mL)

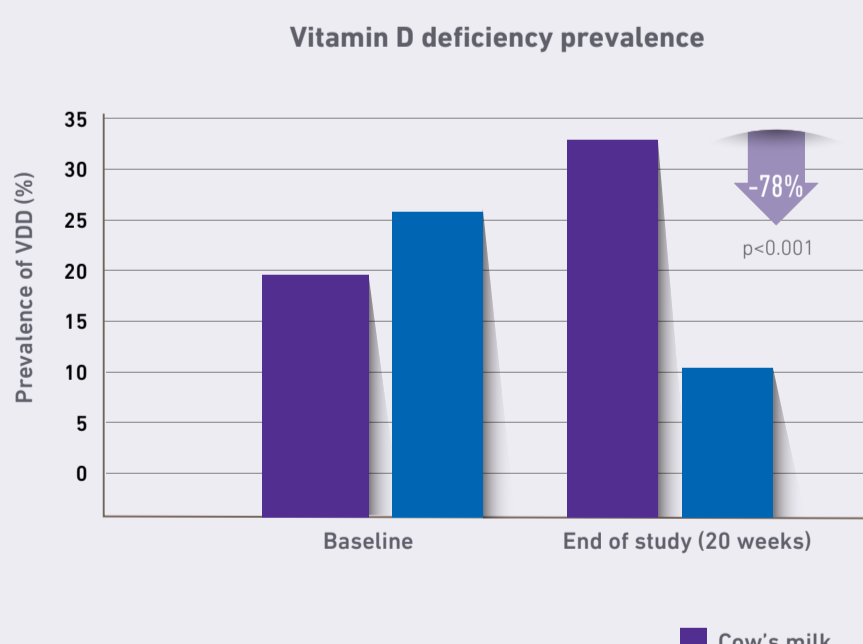
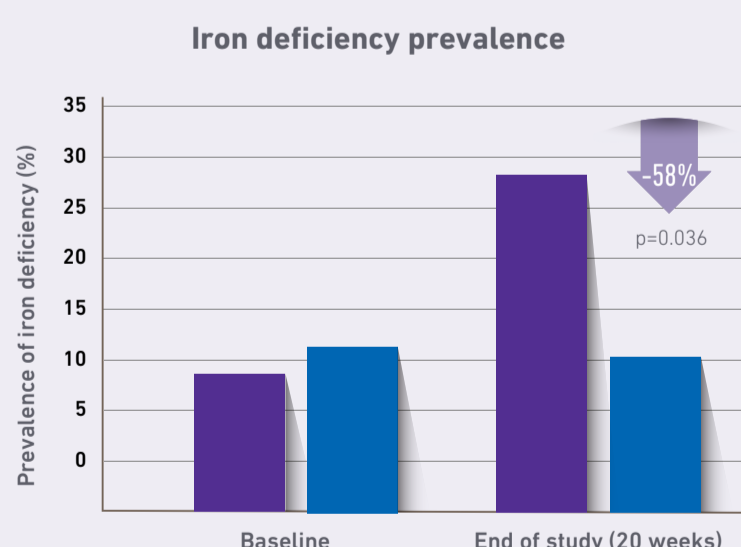


Non-fortified cow milk (CM)
(0.02 mg Fe/100 mL; no vitamin D)

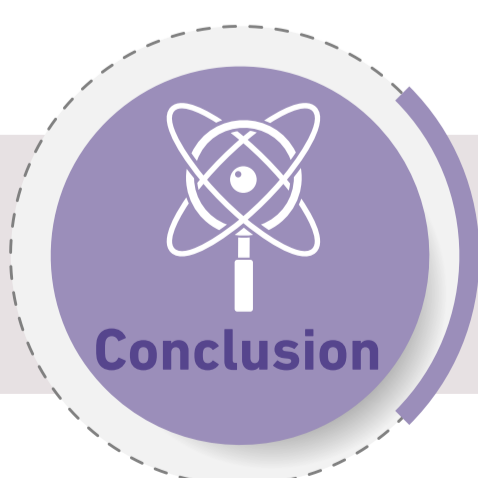
20 Weeks

- **Primary outcome:** change from baseline in serum ferritin (SF)³
- **Secondary outcome:** change from baseline in 25-hydroxyvitamin D [25(OH)D]³

Strong association between lower risk of ID and VDD and consuming YCF³



Adapted from Akkermans et al. Am J Clin Nutr. 2017



Micronutrient-fortified YCF use for 20 weeks preserves iron status and improves vitamin D status in healthy young children.³

References

1. Hwalla N, Al Dhaheri AS, Radwan H, Alfawaz HA, Fouda MA, Al-Daghri NM, Zaghoul S, Blumberg JB. The Prevalence of Micronutrient Deficiencies and Inadequacies in the Middle East and Approaches to Interventions. Nutrients. 2017 Mar 3;9(3):229. doi: 10.3390/nu9030229.
2. Cappellini MD, Musallam KM, Taher AT (University of Milan, Milan, Italy; International Network of Hematology, London, UK; American University of Beirut Medical Centre, Beirut, Lebanon). Iron deficiency anaemia revisited (Review). J Intern Med 2020; 287: 153–170.
3. Akkermans MD, Eussen SR, van der Horst-Graat JM, van Elburg RM, van Goudoever JB, Brus F. A micronutrient-fortified young-child formula improves the iron and vitamin D status of healthy young European children: a randomized, double-blind controlled trial. Am J Clin Nutr. 2017 Feb;105(2):391-399. doi: 10.3945/ajcn.116.136143.

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Important Notice: Breastfeeding is best for babies and a healthy diet / maternal nutrition is important when breastfeeding. A decision not to Breastfeed can be difficult to reverse. Infant formula is suitable from birth when babies are not breastfed. It is recommended that all formula milks be used on the advice of a doctor, midwife, health visitor, public health nurse, dietician, pharmacist, or other professional responsible for maternal and childcare and the financial implications should be considered. All preparation and feeding instructions should be followed carefully as inappropriate preparation could lead to health hazards.