# ... just the FACTS

Study summaries examining the latest science on beef's place in a healthy diet

# MICRONUTRIENT DEFICIENCIES ARE COMMON IN WOMEN AND CHILDREN AROUND THE WORLD

# **STUDY DESIGN:**

A worldwide pooled analysis of micronutrient status from population-based surveys (from 2003-2019).

# **OBJECTIVES:**

To estimate the global and regional prevalence of deficiency in at least one of three key micronutrients among preschool children and non-pregnant women of reproductive age.

#### DATA:

Biomarker data for micronutrient status of individuals from nationally representative surveys including young children (6 to 59 months) and non-pregnant women of reproductive age (15 to 49 years).

#### **METHODS:**

Six sentinel micronutrients were selected for country analysis, including iron, zinc, vitamin A, vitamin B12, folate, and vitamin D. For global and regional analysis, three core nutrients were identified that could be used to identify the majority of individuals with any micronutrient deficiency. Logistic regression was used to estimate the prevalence of deficiency in at least one of these core micronutrients in:

- Preschool-aged children iron, zinc, vitamin A
- Non-pregnant women of reproductive age iron, zinc, folate

# **RESULTS:**

Globally, deficiency in at least one of the three core micronutrients is estimated to affect:

- 56% of preschool-aged children
- 69% of non-pregnant women of reproductive age

Although the prevalence of micronutrient deficiency is highest in low- and middle-income countries, nearly half of women and children in high-income countries have at least one micronutrient deficiency.

Iron deficiency alone affects:

- 31% of preschool-aged children in the UK
- 22% of non-pregnant women of reproductive age in the US, and 21% in the UK

#### **CONCLUSIONS:**

Globally, malnutrition affects 1 in 2 preschool children and 2 in 3 women of reproductive age. Micronutrient deficiencies are a major burden in all regions, including high-income countries.

#### FOR YOUR PRACTICE:

Deficiencies in essential micronutrients such as iron, zinc, vitamin A, vitamin B12, folate and vitamin D hinder child growth and development, compromise immune systems and affect human potential.

Stevens G et al. Micronutrient deficiencies among preschool-aged children and women of reproductive age worldwide: a pooled analysis of individual-level data from population-representative surveys. Lancet Glob Health 2022;10(11):e1590-1559.

