Changes in iron, infection, inflammation and growth rate predict changes in hepcidin during the first year of life in infants from rural communities in The Gambia.

Two birth-cohorts of rural Gambian infants:
- 114 Vaccination and Paediatric Microbiome study (VPM study)
- 193 Vitamin A supplementation randomised controlled trial (VA study)

- Extreme seasonality
- Childhood anemia
- Undernutrition
- Frequent infection

Plasma collection:
- Hepcidin
- Ferritin
- Plasma iron
- Soluble transferrin receptor (sTfR)
- Transferrin

Iron deficiency
- VPM study: 67.7% (95% CI: 56.2-79.2%)
- VA study: 36.4% (25.6-47.3%)

Anemia
- VA study: 86.5% (79.5-93.5%)

12 months:
- Iron
- Inflammatory markers

Positive relation: Hepcidin

Negative relation: Weight gain

Weight gain is the most notable dynamic predictor of decreasing hepcidin and ferritin through infancy.

Armitage et al., Haematologica, 2019