from the respective diets was 1.13 ± 0.23, and 1.04 ± 0.20 and 1.40 ± 0.33mg/d. TAZ was not significantly different between CR and CR+Zn diets (p =0.52), but TAZ was significantly greater in ZnBfR when compared with the other two diets (p<0.001 for both).

Conclusions: TAZ from ZnBfR could satisfy daily requirement (3 mg/day) by 47% in children 1-3 years when fed 150g of ZnBfR while it is 28% in 4-8 years. The results confirm that ZnBfR can be a prevention and treatment option for zinc deficiency in young children in population where rice is staple.

Conflict of Interest Disclosure: No author has any conflict of interest.

Further Collaborators: Not applicable

Keywords: Zinc, Biofotified rice, Bangladesh, Zinc deficiency, Young children

---

OAB(T2)3-6

Barriers and Facilitators in the Use of Iron and Folic Acid and Vitamin A Supplementation and Improving Dietary Practices: A Qualitative Study in Zinder and Maradi, Niger

Edwige Landais[1], Mathilda Miotto-Plessis, Christophe Bene[2], Elodie Maitre d'Hotel[3], Truong T Mai[4], Jerome W Somé[5], Eric O Verger[1]

1. French Nationale Research Institute for Sustainable Development (IRD) (France), 2. Alliance Bioversity International–CIAT (Netherlands), 3. French Agricultural Research Centre for International Development (CIRAD) (France), 4. National Institute of Nutrition (NIN) (Viet Nam), 5. Institut de Recherche en Sciences de la Santé (Burkina Faso)

Background and objectives: Consumption away from home (CAFH) represents an increasing share of people's food consumption worldwide, although occurring at different pace and differently according to countries and individuals. Two previous systematic reviews that almost exclusively included studies conducted in high-income countries (HIC) reported that overall CAFH negatively affects individual's diet. To our knowledge there is no systematic review focusing on low and middle-income countries (LMIC). Therefore, the objectives of the present review were: i) to describe CAFH in apparently healthy population in LMIC; ii) to investigate the association between CAFH and energy intake and diet quality.

Methods: A structured search strategy was developed to retrieve peer-reviewed articles published in English from March 2011 until May 2021 in three databases. Of the 475 studies retrieved, 40 met the PICOS criteria and were analysed.

Results: Out of the 12 countries represented in the review, there was an over representation of Brazil, China and Malaysia that accounted for almost three-quarters of the included studies. There was no homogeneity in the definition of CAFH, or in the reference period for which CAFH was reported, making comparisons or synthetises difficult. Overall, several factors such as being a male, being young, high socio-economic status, high education and urbanicity were positively associated with CAFH. Studies investigating energy intake (n=6) reported that a higher CAFH was positively associated with a higher energy intake (up to 35% of total intake). Moreover, CAFH was associated with higher sodium, fats and sugar intakes (n=8). Additionally, studies investigating the association between CAFH and diet (n=16) reported that a high CAFH was associated with poorer diet e.g. western/industrialized dietary patterns, higher consumption of ultra-processed foods, ready meals, alcohol and sweet beverages and poorer diet quality score.

Conclusions: As reported in HIC, CAFH in LMICs is non-negligible and varies greatly according to countries and population under investigation. The drivers of this behaviour, as well as its potential impact on energy intake and diet quality seems similar in LMIC compared to HIC. However, more research is needed on a larger scale in LMIC especially with regard to the potential consequences of CAFH for health.

Conflict of Interest Disclosure: None

Keywords: consumption away from home, low and middle-income countries, diet quality, energy intake

---

OAB(T2)4-2

The association between inflammation and infection status and vitamin A status of children 36 – 59 months of in a malaria-endemic rural area in Burkina Faso

Olivier Ouahamin Sombie[1,2], Augustin N. Zeba[2], Adama Kazienga[1], Jean Fidele Bationo[3], Christopher Davis[4], Sherry Tanumihardjo[4], Stefaan De Henauw[1], Souheila Abbeddou[1]

1. Ghent university (Belgium), 2. Institut de Recherche en Sciences de la Santé (Burkina Faso), 3. Centre Muraz (Burkina Faso), 4. Madison University (USA)

Background and objectives: Infections and micronutrient deficiencies are widespread health issues in Africa. Vitamin A (VA) deficiency remains an endemic public health concern, with its health consequences mostly affecting infants, young children and pregnant and lactating women. In Burkina Faso, VA deficiency is especially prevalent during the rainy season. The aim of this study was to assess the association between common infections and inflammatory status and VA status in children living in a malaria endemic rural area in Burkina Faso, and the effect of season on this association.

Material and methodology: Two community-based cross-sectional studies were conducted in a malaria endemic area of Burkina Faso and have included 115 children of 36 - 59 months of age. The ^{13}C-retinol isotope dilution test (RID) determined VA total body store (TBS) and total liver reserve (TLR). Malaria infection was assessed using rapid diagnosis test and malaria smear, intestinal parasites were assessed by stool microscopic examination, and inflammation indicators, C reactive proteins (CRP) and Alpha-1-acid glycoprotein (AGP) were assessed in

Ann Nutr Metab 2023;79(suppl 1):14–1172
DOI: 10.1159/000530786