**Results:** 153 RD's in the United States participated in the survey. On average, participants worked as an inpatient RD for 9.2 (8.5) years and a critical care RD for 6.3 (6.5) years in mostly community (35%) and/or urban (31%) settings. 50% (n=76) of participants hold an advanced certification with 75% (n=57) being the Certified Nutrition Support Clinician (CNSC) certification. While there was no association between RD's having an advanced degree and a higher income (p=0.67), a significant association was observed between having an advanced certification and a higher income (p=0.003) Although 65% of participants reported having adequate employer-provided access to educational resources on critical care nutrition (e.g. peer-reviewed journals, continuing education), 72% reported having inadequate work time to review or implement updated evidence-based recommendations.

**Conclusions:** Although the upcoming 2024 requirements stipulate obtaining a graduate degree as a prerequisite for RD licensure, dietitian reports suggest that an advanced certification is more likely to result in higher compensation. A variety of practice-related barriers exist that inhibit RD's from sourcing and implementing updated research, and should be explored further to improve protein delivery and the overall professional experience of the RD.

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## **P09-004-23** Food Choice Patterns Among Children: A Cluster Analysis of School Lunch Selections

Inès François<sup>1</sup>, Matthew Homer<sup>1</sup>, Hannah Ensaff<sup>1</sup>

**Objectives:** More than a fifth (23.4%) of 10–11-year-olds in England live with obesity. The link between childhood obesity and health issues (e.g., joint pains, type 2 diabetes) is also evident. Understanding children's food choice behaviour is relevant to changing dietary habits and tackling childhood obesity. During the school day, children have the opportunity to select their school lunch from several options available. This study aimed to examine children's food choice patterns in school, using automatically collected data on school lunch selections.

**Methods:** School lunch selection for 20 weeks (96 school days) from one school in England was collected. School children (5–11 years) who selected their school lunch on at least 15 occasions were included in the analysis (n=155, 11,796 transactions). Three options for school lunch were available daily: a meat/fish-based main meal (MF), e.g. sausage and mashed potatoes, battered fish and chips; a vegetarian main meal (VG), e.g. vegetarian pasta Bolognaise; and a sandwich/jacket potato (SJ), e.g. ham sandwich, cheesy jacket potato. Data were aggregated by each child, and cluster analysis was conducted to examine children's food choice patterns. Cluster membership and socio-economic characteristics were examined with chi-squared tests

**Results:** Four clusters of children with distinct patterns of food choice were identified (the model has reasonable fit): (1) dominated by meat/fish-based main meals (n = 43, MF:76.8%, SJ:10.5%, VG:12.7%); (2) low selection of vegetarian main meals

 $(n=42, \mathrm{MF}:50.2\%, \mathrm{SJ}:36.8\%, \mathrm{VG}:13.0\%)$ ; (3) tendency towards main meals  $(n=40, \mathrm{MF}:57.8\%, \mathrm{SJ}:12.4\%, \mathrm{VG}:29.8\%)$ ; (4) assorted selection  $(n=30, \mathrm{MF}:36.8\%, \mathrm{SJ}:27.9\%, \mathrm{VG}:35.3\%)$ . The child's age and entitlement to a free school meal were not associated with the cluster memberships  $(p=0.62 \mathrm{~and~} p=0.83, \mathrm{respectively})$ .

**Conclusions:** The data provided insights into children's food choice patterns. Further work based on more granular food categories is needed, and findings have the potential to inform public health initiatives related to children's dietary intake.

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## P09-005-23 Vitamin B12 Intake Status of Koreans Estimated Using Real-Time Food Analysis Data in a Total Diet Study

Cho-il Kim<sup>1</sup>, Sung Ok Kwon<sup>2</sup>, Jeeyeon Lee<sup>3</sup>, Min Jeong Seo<sup>4</sup>, Gae Ho Lee<sup>4</sup>

Objectives: Vitamin B12 (VB12) is a B vitamin that has an important role in cellular metabolism, especially in DNA synthesis, methylation and mitochondrial metabolism. Although the prevalence of VB12 deficiency increases with age, as well as with vegetarian diet, there has been no official report on VB12 adequacy of Koreans. In total diet studies (TDS), levels of the analytes are determined in foods as they would be consumed (table-ready). This is particularly important for estimating dietary intake of nutrients, level of which may change as a result of preparation. Hence, we attempted to estimate the dietary VB12 intake of Koreans based on the real-time food analysis data in TDS and corresponding food intake based on the Korea National Health and Nutrition Examination Survey (KNHANES).

**Methods:** We merged dietary data of 5 years from KNHANES 2016–2020 to establish a nationwide & representative food intake data set. Based on the type of dishes (prepared foods) consumed, 241 pairs of 'ingredient food X cooking method' were identified covering 93.6% of total food intake of Koreans. Foods prepared accordingly were subject to VB12 analysis using LC–MS/MS.

**Results:** High VB12 content was detected in seaweeds in addition to well-known sources of animal foods. Mean VB12 intake of Koreans was 2.99  $\mu$ g/person/day (all), 3.46  $\mu$ g/person/day (male), and 2.53  $\mu$ g/person/day (female). Major food groups contributing to VB12 intake were fishes & shellfishes (43.4%), meats & their products (23.9%), seaweeds (12.7%), and eggs (11.9%). More than half of VB12 intake was from 5 foods with dried laver (12.1%) on top. Overall, 48.6% of the population showed VB12 inadequacy (intake < EAR) and the prevalence was higher in females (55.1% vs 42.1% in males) with the highest in elderly women (73.0%), possibly due to their low consumption of animal foods. Mean VB12 intake of people without

<sup>&</sup>lt;sup>1</sup>University of Leeds

<sup>&</sup>lt;sup>1</sup>Department of Food and Nutrition, Seoul National University

<sup>&</sup>lt;sup>2</sup>Research Institute of Human Ecology, Seoul National University

 $<sup>^3</sup>$ Department of Senior-friendly Industry, Korea Health Industry Development Institute

<sup>&</sup>lt;sup>4</sup>Korea Research Institute of Analytical Technology