Conclusions: The findings indicated that there would be trade-offs between improving diet quality (nutrient adequacy) and reducing the environmental impact. Switching to a diet with lower GHGE may not achieve nutrient adequacy among Vietnamese women. To accomplish both a reduction of GHGE and sufficient nutrient adequacy, a substantial change of diet would be required.

Keyword: Nutrient adequacy, Greenhouse gas emissions, Dietary patterns, Dietary diversity, Food system

PAB(T6)-126
The carbon footprint of moderate-cost food basket in Serbia

Vanja Todorovic[1], Nevena Dabetic[1], Sladjana Sobajic[1]

1. University of Belgrade - Faculty of Pharmacy (Serbia)

Background and objectives: Climate change and food production are closely related. The food chain emits greenhouse gases (GHGs) at each stage; e.g. throughout farming process, production, distribution, refrigeration, retailing, food preparation, and waste disposal. One-third of global greenhouse gas emissions comes from food production and consumption. Food chain sustainability, including reducing food emissions is one of the best and easiest approaches to reduce human impact on the planet. National shopping basket is a tool that reflects the product's share of households' spending in the certain country. This study was designed to examine the sustainability of Serbian affordable foods by calculating their carbon footprint using food items of moderate-cost shopping basket in Serbia.

Methods: The structure of the moderate-cost shopping basket for a family of three in Serbia is published on a monthly basis by the Ministry of Trade, Tourism and Telecommunications. Food list includes 73 food items categorized into 9 groups such as cereals, vegetables, fruits, meats, fish, fats and oils, dairy products, non-alcoholic beverages, and miscellaneous other foods. Food carbon footprint calculator *My Emissions* was used for estimation of emission of all food items in the basket.

Results: The monthly quantities, intended for family of three, of each food item were multiplied by its carbon footprint and summed up the values to derive an estimate of greenhouse gases emission (335504 gCO2e). Comparing obtained estimates with globally fair daily food emissions value of 3.05 kgCO2e, it was pointed out that emissions of moderate-cost food basket in Serbia per person on daily basis is around 20% higher.

Conclusions: Based on that, it can be concluded that Serbian government should introduce educational and official programs towards promoting the idea of sustainable food choices in order to contribute worldwide strategy for lower global emission.

Keyword: food production, CO2, emissions, food chain, sustainability

Conflict of Interest Disclosure: The authors declare no conflict of interest.

Further Collaborators: /

PAB(T6)-127
Are communities ready to address the issue of poor food safety and nutritional quality in urban Senegal?

Julia Liguori[1], Agnès Le Port[1], Moustapha Seye[2], Rebecca Pradeilles[3], Nicolas Bricas[4], Abdou Salam Fall[2], Michelle Holdsworth[1]

1. French National Research Institute for the Development (IRD) (France), 2. Laboratoire de Recherche sur les Transformations Economiques et Sociales (LARTES) (Senegal), 3. Loughborough University (UK), 4. French Agricultural Research Centre for International Development (CIRAD) (France)

Background and objectives: In Senegal, increased prevalence of overweight/obesity and diet-related non-communicable diseases is of paramount concern, urging the transformation of food systems to deliver more nutritious and safe foods. Community involvement is recognised as an important factor in the success and sustainability of efforts to promote healthy eating and prevent overweight/obesity. Therefore, this study aimed to assess communities' readiness to address the issue of poor food safety and nutritional quality of foods available in their food environments (i.e., places where consumers acquire or consume foods) in urban Senegal.

Methods: The Community Readiness Model (CRM), consisting of 36 open questions that revolves around five dimensions of readiness (community knowledge of efforts, leadership, community climate, knowledge of the issue and resources) was used. Community leaders and actors who play a key role within the food environment were individually interviewed in two neighbourhoods of Guediawaye (n=9) and Dakar (n=10). Interviews were scored with a maximum of 9 points per dimension (1= no awareness, 9= high level of community ownership) and thematic analysis was conducted on key informants' recommendations to ensure nutritious and safe food systems.

Results: Both communities reached the stage of 'vague awareness' of the issue, with a mean score of 3.00 ± 1.94 in Guediawaye and 3.11 ± 1.58 in Dakar. Both communities scored highest for 'knowledge of the issue' (6.00 ± 2.44 in Guediawaye; 5.69 ± 2.08 in Dakar), while the lowest scores were found for 'community knowledge of efforts' (1.46 ± 0.81 in Guediawaye; 1.86 ± 2.30 in Dakar). Leaders' concern and prioritisation of this issue was perceived as inexistent in both neighbourhoods, contrasting with high levels of community concern. Proposed solutions included: raising community awareness, improving sanitation infrastructure locally and nationally, and increasing government involvement.

Conclusions: While several key informants recognised the lack of nutritious and safe food is a concern, they also

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highlighted other priority issues, such as lack of financial security, infrastructure and/or food insecurity/hunger within their communities. Encouraging community readiness through public awareness campaigns and increasing government engagement is needed before interventions to promote safe and nutritious food in urban Senegal can be introduced.

Keyword: Community readiness, Food environment, Nutritional quality, Food Safety, Senegal

Conflict of Interest Disclosure: No conflict of interest

PAB(T6)-128

Short stature in relation to severity of anemia using 2 hemoglobin correction factors to altitude in Peruvian 6 to 59 months old children

Luis Baquerizo Sedano[1,2], Jose A Chaquila[1,2], Dayana Barriga[1], Juan Aparco[1], Pamela Santillán[2], Pabel Lazo[2], Pedro González-Muniesa[1,2,3,4,5,6]

1. San Ignacio de Loyola University (Peru), 2. Centro de Investigación en Hipoxia y Obesidad (Peru), 3. University of Navarra; Department of Nutrition, Food Science and Physiology (Spain), 4. University of Navarra, Center for Nutrition Research, School of Pharmacy and Nutrition (Spain), 5. IdISNA- Navarra Institute for Health Research (Spain), 6. CIBER Fisiopatología de la Obesidad y Nutrición (CIBERobn), Instituto de Salud Carlos III (Spain)

Background and objectives: Child malnutrition is a serious public health problem in the world, as it compromises physical and cognitive development and negatively impacts health throughout life. Anemia and short stature are two consequences of malnutrition, which tend to occur together, especially in developing countries. In addition, in populations living at high altitudes, it is proposed to use a hemoglobin correction factor. Our objective was to assess the risk of short stature in relation to the presence and severity of anemia using 2 hemoglobin correction factors.

Methods: The open database of the Peruvian government for 2019, 2020 and 2021 was used, with 760763 children between 6 and 59 months, living from 2 to 4801 meters above sea level. The raw value for WHO was used, the conventional correction factor proposed by the CDC: [adjusted Hg] (g/dL) = -0.032 x (Altitude in meters x 0.0033) + 0.022 x (altitude in meters x 0.0033)^2 and the most recent by Sharma et al. [Adjusted Hg] (g/dL) = 0.0048108*altitude+0.0000004*altitude^2. The cut-off points were mild (10-11 g/dL), moderate (7-9.99 g/dL) and severe anemia less than 7 g/dL. A prevalence ratio was performed with the statistical program SPSS 16.

Results: The percentage of children with total anemia were according to WHO (15.97%), CDC (28.07%), Sharma (34.31%). The following risk values for short stature are presented with a 95% confidence interval, according to the WHO, for mild anemia 1.06 (1.04-1.08), moderate 1.24 (1.20-1.27), severe 3.02 (2.27-4.04); according to the CDC, mild anemia 1.24 (1.22-1.26), moderate 1.52 (1.49-1.55), severe 2.34 (2.11-2.60); and according to Sharma, mild anemia 1.15 (1.14-1.17), moderate 1.49 (1.46-1.52), severe 2.56 (2.26-2.89). These results indicate a significant increased risk of short stature even with mild anemia and it increases as the severity of anemia increases, with the highest risk of short stature with severe anemia.

Conclusions: At the public health level, it is a great challenge to reduce malnutrition in children, however, it is necessary longitudinal studies to establish the optimal growth pattern and hemoglobin levels at high altitude and thus choose the best correction factor, and in this way direct resources more precisely.

Keyword: malnutrition, hemoglobin, anemia, altitude, short stature

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PAB(T6)-129

Food security implications of COVID-19 pandemic among Indigenous peoples living in urban areas of Saskatchewan, Canada

Mojtaba Shafiee[1], Hassan Vatanparast[2], Ginny Lane[3]

1. University of Saskatchewan (Canada), 2. University of Saskatchewan (Canada), 3. University of Idaho (USA)

Background and objectives: The COVID-19 pandemic and associated economic and social responses (e.g., quarantines, business closures) may adversely affect food access and increase food insecurity among at-risk populations such as Indigenous peoples. Therefore, we aimed to assess the food security implications of COVID-19 pandemic and lockdown among off-reserve Indigenous people in Canada. **Methods**: In collaboration with Indigenous co-researchers, we developed an online survey questionnaire containing four subscales: background information, Household Food Security Survey Module (HFSSM), food access, and traditional food consumption. The survey was distributed via SurveyMonkey® to Indigenous adults living in urban areas of Saskatchewan, Canada between August 2021 and March 2022. **Results:** Out of 99 off-reserve Indigenous peoples who participated in our survey, 78.6% were females, 18.4% were males and 3.0% were other genders with mean age of 35.8 ± 12.5 years (18-75 years). A large proportion of the respondents were single (47.4%), had full-time jobs (50.5%), had at least a bachelor's degree (33.3%), and lived in households with four or more members (46.3%). During the first four months of COVID-19 pandemic, 65.9% of off-reserve Indigenous peoples in Saskatchewan experienced some level of food insecurity (27.3% severe, 28.4% moderate, 10.2% marginal). During the same time period, food price increases (47.0%) and limited food availability at markets (38.6%) were reported as the main challenges in accessing food. About 39.2% of respondents also reported challenges in accessing traditional foods during COVID-19 pandemic. Eating less than usual and less preferred foods (25.9%) along with seeking help from food banks, welfare and

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