METHODOLOGY: A convenience sample of community-dwelling individuals ≥18 years old, with no severe, long-term or end-stage chronic diseases, was selected. Total LBM was estimated by dual energy x-ray absorptiometry (DXA) using a Hologic Horizon-Wi densitometer. Bioelectrical resistance and reactance were measured with an ImpediMed SFB7 spectroscope (256 frequencies between 3 kHz and 1000 kHz), and were used to calculate FFM estimates using 9 gender-specific equations (Deuremberg, Kyle, Sun, Gray, Reubenoff, Lukaski, Matias, Chumlea, Houtkooper) which were compared with DXA-derived LBM using Pearson correlation and t-tests for paired samples. Continuous variables are presented in means ± standard deviations.

RESULTS: A total of 335 individuals (aged 39.0±14.2 years old, age range 18-79 years, 67% women) were included, with a body mass index of 23.7±3.7 kg.m-2 and DXA-derived total body fat of 28.4±8.4%. LBM was 47.11±11.16 kg. FFM estimates ranged from 43.61±9.52 kg (Reubenoff) to 51.14±12.44 kg (Matias). The Gray and the Lukaski equations conveyed the closest approximation to LBM (47.31±10.11 kg, r=0.943, mean difference -0.20±3.73 kg, t=-0.75, p=0.344, and 47.33±10.6 kg, r=0.956, mean difference -0.23±3.28 kg, t=-1.21, p=0.227, respectively).

CONCLUSIONS: The Gray *et al.* (1989) and the Lukaski *et al.* (1991) equations were precise at estimating FFM from BIA in community-dwelling healthy Portuguese individuals. Further agreement analysis and external validity of these results are warranted.

CO18. DIETARY PATTERNS FROM CHILDHOOD INTO EARLY ADOLESCENCE: ASSESSING THE STABILITY OF HEALTHY AND SUSTAINABLE DIETS

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INTRODUCTION: Healthy diets from sustainable food systems are warranted across life, however little is known about their tracking with time, specifically in pediatric ages.

OBJECTIVES: To assess the stability of healthy and sustainable diets from childhood into early adolescence.

METHODOLOGY: Participants were 2951 children from Generation XXI cohort, who provided 3-day food diaries on at least 2 follow-ups considering the 7, 10, and 13 years-old. Adherence to the Eat-Lancet dietary recommendations was assessed with the World Index for Sustainability and Health (WISH) adapted for pediatrics. WISH includes 13 food groups (grains, vegetables, fruits, dairy, red meat, fish, eggs, white meat, legumes grains, nuts, unsaturated fats, saturated fats, soft drinks and added sugars) with a variation range 0-130 (the higher the score, the greater the adherence to a healthy and sustainable diet). Mixed effects models were used to assess the trajectory over time with an interaction by sex. The model included two linear and quadratic fixed effects and a random intercept per individual. Intra Class Correlation coefficients (ICCs) were calculated to assess stability across age.

RESULTS: WISH mean scores at ages 7, 10, and 13, were 59.9, 53.2, and 48.7, respectively. The WISH score had a stability of 24% (ICC=0.24) with a declining trend across age (β' for age=-2.43;95%CI-2.84, -2.03) from the ages 7 to 13. However, a deceleration of the decrease as children aged was observed (β' for the quadratic term of age=0.12;95%CI 0.06,0.18). This downward trend was different by sex: WISH scores declined more rapidly for boys than for girls between the ages of 7 and 13 (β' for sex=-0.26;95%CI-0.48,-0.05).

CONCLUSIONS: Diets become less healthy and sustainable from childhood into adolescence, especially for boys, with a greater decline between the ages of 7 and 10. These findings emphasis the need to invest more in the promotion of better diets.

CO19. SEX DIFFERENCES IN THE ASSOCIATION BETWEEN PERCEIVED SOCIAL SUPPORT AND ADHERENCE TO THE MEDITERRANEAN DIET: PRELIMINARY RESULTS FROM THE MIND-MATOSINHOS TRIAL

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INTRODUCTION: Social support is a main determinant of healthy ageing. Its association with healthy eating habits, such as Mediterranean diet (MD) adherence, has been suggested. However, there is a lack of studies addressing this relationship among adults at high risk of dementia, especially exploring sex differences.

OBJECTIVES: To estimate the association between perceived social support and MD adherence among community-dwelling adults at high risk of dementia, according to sex.

METHODOLOGY: This cross-sectional study included baseline data from 126 participants in a randomized controlled trial to assess the effectiveness of non-pharmacological interventions to prevent cognitive decline (MIND-Matosinhos, Registration number: NCT05383443). Data on sociodemographics, lifestyles, health, anthropometrics and cognitive performance were collected in 2020/2022. Perceived social support was measured using the 3-Item Oslo Social Support Scale (OSSS-3), and good adherence to the MD was defined using the Portuguese version of the Mediterranean Diet Adherence Screener (MEDAS) questionnaire (≥10 points).

Stratified associations by sex between perceived social support and MD adherence were calculated as age- and education-adjusted Odds Ratios (OR) and 95% Confidence Intervals (95% CI) using logistic regression.

RESULTS: Participants had a median age of 70 years (range: 24-83 years), and 58.7% were female. High adherence to the MD was observed among 14.9% of females and 17.3% of males. For both groups, the median OSS-3 sum score was 11.0 (Interquartile Range=9-12). Among men, higher OSSS-3 sum scores were associated with good adherence to the MD (OR=2.23; 95% CI:1.06-4.69) but not in women (OR=0.80; 95% CI:0.57-1.11) (p for interaction=0.01).

CONCLUSIONS: Our preliminary results prompt a call for more in-depth research to explore these sex differences and their implications for designing interventions that promote healthy ageing. A larger sample size is needed to enhance our understanding of the complex relationship between social support and adherence to the MD in this vulnerable population.

CO20. A FOOD-LEVEL APPROACH TO IDENTIFY SUSTAINABLE FOODS AMONG THE MOST CONSUMED BY THE PORTUGUESE ADULT POPULATION

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INTRODUCTION: The link between nutritional quality, cost, and environmental impact in dietary choices is not always straightforward. Therefore, it is crucial to identify foods that are not only nutrient-rich but also affordable, environmentally friendly, and culturally acceptable.

OBJECTIVES: This cross-sectional study aims to identify sustainable foods among the most consumed by the Portuguese adult population.

METHODOLOGY: Individual food consumption data was collected using two non-consecutive 24-hour recalls during the most recent National Food, Nutrition and Physical Activity Survey of the Portuguese general population. A total of 399 food items were identified as representative of the Portuguese diet, covering 89% of the total daily energy intake of the 3852 adult participants (18+ years old). Sustainability indicators per 100g of edible food included nutritional (Nutrient-Rich Food Index 9.3 and NOVA classification system), environmental (greenhouse-gas emissions and land use), and economic (retail prices in 2023 and 2015) dimensions. A composite sustainability score was developed to identify the most sustainable foods.

RESULTS: Fruit, vegetables, legumes, cereals, cereal products, starchy tubers, meat, fish and eggs exhibited the highest nutritional quality. Conversely, sweets, cakes, biscuits, salty snacks and pizzas were predominantly ultra-processed food items. Dairy, meat, fish, eggs, sweets, cakes, biscuits, fats and oils showed the highest environmental impact. Meat, fish, eggs, salty snacks and pizzas were among the highest-cost items. Only 11.5% of food items achieved a maximum sustainability score, namely fruit, vegetables, legumes, cereals, cereal products, starchy tubers, and non-alcoholic beverages. This percentage decreased to 9.5% when considering 2023 prices.

CONCLUSIONS: Our findings reveal disparities in sustainability dimensions across various food groups, emphasizing the complex balance between nutrition, environment, and economic aspects in dietary choices. This food-level approach may empower consumers to make more sustainable choices in their diets.

CO21. ASSOCIATION BETWEEN APPETITIVE TRAITS FROM CHILDHOOD TO ADOLESCENCE AND CARDIOMETABOLIC HEALTH: FINDINGS FROM THE GENERATION XXI COHORT

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INTRODUCTION: Appetitive traits, driving food selection and eating choices, are linked to weight outcomes, yet their association with cardiometabolic health is less clear. Fostering optimal cardiovascular health in early age is crucial due to the premature onset of atherosclerosis.

OBJECTIVES: To assess the association between appetitive trait trajectory profiles from 7 to 13 years of age and cardiometabolic health at age 13.

METHODOLOGY: Participants were 3528 children from Generation XXI cohort. Children's Eating Behaviour Questionnaire (CEBQ) assessed appetitive traits at ages 7, 10, and 13. Six appetitive trait trajectory profiles were previously identified using Gaussian mixture models ('Moderate appetite', 'Small to moderate appetite', 'Increasing appetite', 'Avid appetite', 'Smallest appetite', and 'Small appetite but increasing'). Cardiometabolic health at age 13 was evaluated considering different parameters (triglycerides, homeostatic-model assessment-insulin resistance, waist circumference, systolic blood pressure,

and high-density lipoprotein cholesterol sex and age-adjusted z-scores) and risk clusters derived from these parameters ('Lower risk', 'Intermediate risk', and 'Higher risk'). Linear regression and multinomial logistic regression models, adjusted for different covariates were used.

RESULTS: The 'Avid appetite' profile, marked by high desire to eat and interest in food across time, was associated with higher z-scores for all cardiometabolic parameters at age 13 (inverse for high-density lipoprotein cholesterol). Individuals in this profile had three times higher odds of being classified into the 'Intermediate risk' cluster (OR=3.10,95%CI[2.34,4.11]) and five times higher odds of being classified into the 'Higher risk' cluster (OR=5.34,95%CI[3.37,8.59]), compared to those in the 'Moderate appetite' profile. The opposite pattern was observed for the 'Smallest appetite', indicative of a low desire to eat and interest in food, suggesting a more favourable cardiometabolic health.

CONCLUSIONS: Adolescents showed differences in cardiometabolic health based on their appetitive profiles. A persistent avid appetite was associated with less favourable cardiometabolic health. Addressing appetitive traits during youth may improve cardiometabolic health.

CO22. FOOD WASTE FROM THE PUREED DIET IN A HOSPITAL CONTEXT: CASE STUDY

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INTRODUCTION: Food waste at the hospital level has been documented and associated with the prevalence of malnutrition, contributing to increased length of stay, costs and environmental impact. A diet with a pureed texture, naturally associated with the aging process or disease, can make it difficult for the patient to adhere to it.

OBJECTIVES: The aim of the present study was to evaluate food waste from the pureed diet, in the lunch meal, of patients admitted to a public hospital.

METHODOLOGY: Observational study with a cross-sectional design. The food waste of all components of the meal served to patients prescribed a pureed diet was assessed at two different times. To quantify food waste from 74 meals, the physical method of weighing was considered with individual quantification during plating and after ingestion.

RESULTS: The food waste of the dish was 66.3%, 52.5% of the soup and 32.9% of the dessert. In the analysis of average food waste by age group, it was determined that in patients aged ≥ 70 years (n=52) it was higher in all components when compared to patients aged < 70 years, although differences didn't have statistical significance (p=0.09). Non-compliance with the quotas established in specifications was found, with regard to supply above that established in all soups, in 36.5% of dishes and in 71.6% of desserts (Table 1).

CONCLUSIONS: The high food waste, in all components of the meal, demonstrates that it is essential to intervene in the adjustment of served serving and implement personalized measures to meet patients' energy needs.