C.O.
COMUNICAÇÕES ORAIS

CO1. THE IMPACT OF PROJECT RODA ON REDUCING FOOD WASTE AT SCHOOLS: A PRE-POST INTERVENTION STUDY

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INTRODUCTION: School meals are a valuable opportunity to ensure children's nutritional intake; however, Portuguese school canteens have demonstrated high rates of food waste (FW). Project RODA was developed to reduce FW at schools, promoting school meal consumption among children and enhancing canteens' food service performance.

OBJECTIVES: To assess the impact of a 20-week food education programme to reduce FW in the canteens of two public preschools and primary schools in the Municipality of Faro.

METHODOLOGY: This was a pre-post intervention study performed in three phases: baseline (T0), 20th week of intervention (T1) and 24 weeks post-intervention (T2). FW assessments were conducted during three non-consecutive days in February, June, and December 2023. Food produced and wasted (leftovers and plate waste) were weighed according to components (soup, carbohydrate sources, protein sources and vegetables).

RESULTS: In total, 3589 meals were assessed in the study. The average FW percentages were 47.0% (T0), 25.01% (T1), and 39.03% (T2), with a significant decrease in T1 (p=0.002). Regarding total FW, protein sources and vegetable percentages significantly decreased in T1 (p=0.042 and p=0.042). Furthermore, vegetable leftovers and plate waste also significantly decreased in T1 (p=0.032 and p=0.037). However, a significant increase in total plate waste, vegetable and soup plate waste was observed in T2 (p=0.005, p=0.037 and p=0.030), as presented in Table 1.

CONCLUSIONS: The decrease in FW percentages observed in all meal components in T1 demonstrates the short-term effectiveness of the intervention. Nevertheless, the increase in total FW and plate waste in T2, particularly in vegetable and soup components, highlights the need for continuous interventions to maintain its effectiveness in the long term. Therefore, the presence of a Dietitian at schools and including food education in the school curriculum are essential to ensure children's adequate nutritional intake and promote sustainability within the school environment.

CO2. INDICADORES PARA AVALIAÇÃO DE DESEMPENHO AMBIENTAL EM UNIDADES DE ALIMENTAÇÃO COLETIVA (UAC)

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INTRODUÇÃO: A produção de refeições em Unidades de Alimentação Coletiva (UAC) é geradora de impactos ambientais, dada a utilização de recursos, como alimentos, água e energia e a geração de resíduos sólidos. A avaliação de desempenho ambiental é uma ferramenta que a partir da análise do ciclo de vida do produto e da seleção de Indicadores pode contribuir para a redução destes impactos.

OBJETIVOS: Elaborar indicadores de desempenho e de condição ambiental para avaliação do impacto da produção de refeições em UAC.

METODOLOGIA: Estudo descritivo, transversal que utilizou como referenciais teóricos a ISO 14.040 e a ISO 14.031 para avaliação do ciclo de vida da produção das refeições e elaboração de indicadores de desempenho ambiental, respetivamente. No estudo do fluxo de produção das refeições foram levadas em consideração as entradas (alimentos, água e energia), a transformação (equipamentos e processos) e as saídas (resíduos sólidos). Foram elaborados indicadores gerais e por etapa do processo. Os indicadores foram classificados em desempenho operacional (IDO), gestão (IDG) e condição ambiental (ICA).

Resultados: Foram elaborados 83 indicadores, sendo 41 (49%) IDO, 28 (34%) IDG e 14 (17%) ICA. Dos IDO, a maioria (12) esteve relacionado com as operações, nomeadamente consumo de energia e de água e geração de resíduos orgânicos e recicláveis durante as etapas do processo produtivo de refeições. Com relação aos IDG, os indicadores relacionam-se com atividades de capacitação e educação ambiental para funcionários e utentes, respetivamente, bem como com a manutenção de equipamentos. Os indicadores de condição ambiental relacionam-se com as condições de trabalho, como utilização de EPI, conforto térmico, de umidade e ruído durante a realização das etapas de produção de refeições.

CONCLUSÕES: Devem ser implementados os registos das variáveis necessárias, para que se possa estabelecer metas que priorizem a minimização de impactos ambientais e sociais durante a produção de refeições.

TABLE 1

Total food waste, leftovers, and plate waste according to intervention phase and meal components

COMPONENT	FOOD WASTE (%)				LEFTOVERS (%)				PLATE WASTE (%)			
	T0	T1	T2	p^1	T0	T1	T2	p^1	T0	T1	T2	p^1
Meal	47.0 ± 15.4	25.1 ± 5.4	39.0 ± 12.0	**0.002***	22.8 ± 10.1	9.0 ± 5.4	13.4 ± 8.5	0.052	30.6 ± 11.3	20.6 ± 8.3	33.9 ± 11.0	**0.005***
Soup	30.3 ± 12.1	18.5 ± 13.4	27.0 ± 17.6	0.232	17.5 ± 5.3	8.3 ± 6.4	9.6 ± 8.1	0.055	15.7 ± 11.7	14.5 ± 14.1	28.7 ± 21.1	**0.030***
Vegetables	76.0 ± 15.3	48.0 ± 16.7	81.5 ± 10.5	**0.042***	20.2 ± 13.5	0.7 ± 1.8	3.87 ± 6.01	**0.032***	55.8 ± 13.0	47.3 ± 13.0	77.6 ± 12.5	**0.037***
Carbohydrate sources	44.8 ± 12.6	39.9 ± 19.6	52.2 ± 13.8	0.107	16.9 ± 10.5	7.38 ± 6.0	13.5 ± 9.5	0.266	31.0 ± 12.0	27.6 ± 12.9	38.7 ± 19.2	0.385
Protein sources	53.8 ± 12.3	24.4 ± 14.4	45.2 ± 15.7	**0.042***	35.1 ± 39.5	13.3 ± 9.5	20.2 ± 16.1	0.607	41.0 ± 23.6	20.5 ± 15.7	25.0 ± 8.1	0.135

[1] Two-way ANOVA test (variables with normal distribution) and Friedman test (variables with non-normal distribution) were performed

* Level of significance $p < 0.05$

CO3. PERFIL DA INSEGURANÇA ALIMENTAR NA ILHA DE SANTIAGO, CABO VERDE

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INTRODUÇÃO: Compreender o fenómeno de insegurança alimentar é cada vez mais um desafio presente e urgente. Cabo Verde (CV) debate-se com as consequências diretas que advêm da condição de pequeno país insular e das suas especificidades geoclimáticas.

OBJETIVOS: Pretendeu-se traçar o perfil de Insegurança Alimentar (IA) associando-a a fatores sociodemográficos/económicos e às condições do agregado familiar.

METODOLOGIA: Analisaram-se dados secundários referentes à ilha de Santiago, recolhidos no Inquérito Nacional de Vulnerabilidade Alimentar das Famílias, realizado entre os meses de setembro e outubro de 2018 e cedidos pelo Ministério da Agricultura e Ambiente de CV. Após uma análise descritiva e uso de testes de hipóteses, foram usados modelos de regressão quantílica para explorar potenciais fatores que expliquem a distribuição do score bruto da FIES, realçando o primeiro (Q1), segundo (Q2) e terceiro (Q3) quartis.

RESULTADOS: Do total de 1811 agregados familiares (AF) residentes em Santiago, Cabo Verde, 1443 (79,7%, IC95%:]77,8%; 81,5%[) encontram-se numa situação de IA. Sete dos nove concelhos apresentam percentagens elevadas de IA, a rondar os 90%. Os modelos referentes aos três quartis do score bruto da FIES apresentam R^2 baixos, correspondendo o maior valor ao Q3 (com R^2 =23,8%). A variável rendimento mensal, nível de literacia dos RAF e variáveis associadas ao abastecimento de água integram os três modelos, parecendo ser fatores preponderantes na situação de IA dos AF residentes na ilha de Santiago. Relativamente ao modelo apresentado para o Q1, o impacto do meio de residência e do nível de literacia do RAF não foram significativos contrariamente ao concelho de residência no que diz respeito aos Q2 e Q3 (Tabela 1).

Tabela 1. Regressão Quantílica – Modelos referentes ao 1º, 2º e 3º quartis apresentação do Pseudo R quadrado, sinal do coeficiente e respetivo valor de significância.

	Q1	Q2	Q3
Pseudo R Quadrado	0,166	0,222	0,238
	(Sinal do Coef.) Sign.	**(Sinal do Coef.) Sign.**	**(Sinal do Coef.) Sign.**
Meio de Residência			
Urbano	(-)1,000	-	-
Rural	Ref.	-	-
Concelho			
Tarrafal	-	**(+)<0,001*** **	**(+)<0,001*** **
Santa Catarina	-	**(+)0,001** **	**(+)<0,001*** **
Santa Cruz	-	**(+)0,024***	**(+)0,002** **
S. Domingos	-	(+)0,294	(-)0,963
S. Miguel	-	**(+)0,031**	(+)0,104
São Salvador do Mundo	-	(+)0,524	(+)0,322
São Lourenço dos Orgãos	-	(+)0,266	(+)0,468
Ribeira Grande	-	**(+) 0,004** **	**(+)0,007** **
Praia	-	Ref.	Ref.
Estado Civil			
Casado(a)	-	-	(-) 0,500
Solteiro(a)	-	-	(-) 0,695
Divorciado(a)/separado(a)	-	-	(+) 0,140
União de Facto	-	-	(-) 0,821
Viúvo(a)	-	-	Ref.
Alfabetização			
Não sabe ler nem escrever	-	**(+)0,031***	-
Sabe ler e escrever	-	Ref.	-
Nível de Literacia			
Pré-Escolar	(+)1,000	(-)1,000	(+)0,338
Ensino Básico	(+)1,000	**(+)0,015***	**(+)0,018***
Ensino Secundário	(-)1,000	(+)0,539	(+)0,2886
Ensino Superior	Ref.	Ref.	Ref.
Principal Atividade Profissional do RAF			
Setor Público	(+)1,000	-	**(-)0,007** **
Setor Privado	(+)1,000	-	**(-)0,042***
Voluntário(a)/ONG		-	
Estudante(a)	**(-)0,001** **	-	**(-)0,031***
Doméstica(a)	**(+)<0,001*** **	-	(-)0,597
Reformado(a)	(+)1,000	-	**(-)0,001** **
Desempregado(a)	Ref.	-	Ref.
Número de Elementos do AF			
1-3 elementos	-	**(-)<0,001*** **	-
4-6 elementos	-	**(-)0,002** **	-
7-10 elementos	-	**(-)0,009** **	-
Mais de 11 elementos	-	Ref.	-
Rendimento Médio Mensal do AF (últimos 12 meses)			
Até 5 contos	**(+)0,000*** **	**(+)<0,001*** **	**(+)<0,001*** **
Entre 6 e 13 contos	**(+)0,000*** **	**(+)<0,001*** **	**(+)<0,001*** **
Entre 14 e 24 contos	**(+)<0,001*** **	**(+)<0,001*** **	**(+)<0,001*** **
Entre 25 e 34 contos	(+)1,000	**(+)0,014** **	**(+)<0,001*** **
Entre 35 e 44 contos	(+)1,000	(+)0,321	**(+)0,022** **
Entre 45 e 99 contos	(+)1,000	(+)0,471	(+)0,134
Mais de 100 contos	Ref.	Ref	Ref.
Principal Atividade Fonte de Rendimento do AF (últimos 12 meses)			
Trabalho por conta própria	**(-)<0,001*** **	-	-
Trabalho por conta de outrem	**(-)<0,001*** **	-	-
Reforma	**(-)<0,001*** **	-	-
Pensão Social Mínima ou Apoio Social	**(-)0,000*** **	-	-
A cargo de familiares migrantes	**(-)<0,001*** **	-	-
Rendimento proveniente da agricultura e criação de gado/pesca	Ref.	-	-
Principal Forma de Abastecimento de Água			
Rede Pública	(-)1,000	-	-
Vizinho	(+)1,000	-	-
Autotanque	(+)1,000	-	-
Chafarizes	**(+)0,001** **	-	-
Cisternas Domiciliárias	**(+)0,041***	-	-
Poço	(+)1,000	-	-
Outra (levada, nascente, cisterna pública)	Ref.	-	-
Principal Fonte de Água para beber			
Rede Pública	-	**(-)0,030***	**(-)0,021***
Vizinho	-	(-)0,424	(-)0,651
Autotanque	-	(-)0,312	(-)0,235
Chafarizes	-	(-)0,628	(-)0,295
Cisternas Domiciliárias	-	(-)0,444	(-)0,054
Poço	-	(-)0,283	(+)0,517
Água Engarrafada	-	(-)0,163	**(-)<0,001*** **
Outra (levada, nascente, cisterna pública)	-	Ref.	Ref.

CONCLUSÕES: Para além da complexidade do que determina o fenómeno de IA, este estudo evidencia também aspetos relacionados com características do RAF, disponibilidade financeira e a insegurança hídrica como um desafio a merecer particular atenção.

CO4. FOOD SUPPLEMENTS AND SPORTS FOODS: RECREATIONAL ATHLETES' PERCEPTIONS OF THEIR SAFETY

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INTRODUCTION: The use of food supplements (FS) and sports foods (SF) has become increasingly prevalent among gym-goers. The possible presence of contaminants and adulterants in these products raises concerns about their

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hazards to human health. Reasons for the presence of these substances in FS/SF raised from poor-quality control, improper storage conditions, to cross-contamination and intentional add.

OBJECTIVES: To investigate how gym-goers perceive the main concepts of FS, the risk of their contamination and/or adulteration, and the possible consequences for health.

METHODOLOGY: A cross-sectional study was conducted involving 303 gym-goers, 133 women, and 170 males (30.82 ± 12.84 years old). Face-to-face interviews were conducted by qualified researchers.

RESULTS: Among the participants, 218 (71.95%) were FS consumers. Although 45.88% of participants felt well-informed about FS, a significant majority (95.05%) did not answer correctly to the Directive 2002/46/EC from 10 June, FS definition. Additionally, a substantial proportion of participants were unaware of market regulation (46.50%) and control (40.90%). Non-consumers showed greater awareness of potential FS-drug interactions and expressed concerns regarding the risk of overdosage. In contrast, consumers perceived market control as adequate. Concerns regarding potential contamination with industrial pollutants were expressed by non-consumers, while consumers reported the potential inclusion of prohibited ingredients that alter the product's nutritional value. Men associated contamination and adulteration concerns with the risk of kidney injuries, whereas women were more aware of potential heart and liver problems.

CONCLUSIONS: A substantial proportion of participants were unaware of the correct definition of FS and presented a lack of knowledge regarding market regulation and control. The participants reported industrial pollutants and banned substances as potential contaminants. These findings underscore the need for the implementation of educating programs for consumers about dosages, interactions, and side effects of FS.

CO6. PURCHASING PATTERNS OF SODIUM AND POTASSIUM FOOD SOURCES: A BUDGET ANALYSIS

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INTRODUCTION: Purchasing patterns of sodium and potassium food sources are powerful determinants of the intake of these nutrients related to cardiovascular health.

OBJECTIVES: To assess the purchases of sodium and potassium food sources, according to sociodemographic characteristics, using a budget analysis.

METHODOLOGY: Adults were recruited from Portuguese supermarkets. The purchased items were collected from invoices and sociodemographic data was obtained through an online questionnaire. Were considered for the analysis the following categories: (1) "Potassium Primary Food Sources (PPFS)": fruits/vegetables, legumes, herbs, and spices; (2) "Sodium Primary Food Sources (SPFS)": snacks, ready meals, processed meat/fish, meat analogues, cheese, and savoury bread. The percentages of the food budget spent on SPFS and PPFS were calculated. The ratio "budget spent on SPFS/PPFS" was computed when items from one or both groups were bought. The Spearman correlation and the Mann-Whitney test studied the association between variables and differences across groups, respectively. The median (minimum, maximum) was described.

RESULTS: The median percentage of the food budget spent on PPFS and SPFS was 15.9% (0, 100) and 0.0% (0, 82.9) (n=88), respectively. A median ratio of 0.35 (0.01, 191.0) was observed (N=72). A significantly higher median percentage of the food budget spent on SPFS was observed for customers aged ≤ 44 years old [15.4% (0.0, 79.1) *vs*. 0.0% (0, 53.3); p=0.028]. The studied variables did not have significant differences according to sex, education, and income. A very weak positive significant correlation was observed between the food budget spent on PFSP and SPFS (ρ = 0.216, p=0.044) (n=88). No significant correlations were observed between the ratio and both the overall and the food budget spent.

CONCLUSIONS: SPFS and PPFS make a small contribution to the food budget with SPFS having a higher expression for younger customers. The balancing of money spent on PPFS and SPFS was not affected by the budget spent.

CO7. ASSOCIAÇÃO ENTRE O ÍNDICE DE MASSA CORPORAL Z-SCORE E A UTILIZAÇÃO DE ECRÃS EM CRIANÇAS DE ESCOLAS PRIMÁRIAS EM CONTEXTO DE VULNERABILIDADE SOCIAL

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INTRODUÇÃO: A utilização de ecrãs tem sido apontada como um determinante da obesidade, dado que se trata maioritariamente de comportamento sedentário, também associado a maior ingestão de alimentos de elevada densidade energética.

OBJETIVOS: Avaliar a associação entre o Índice de Massa Corporal (IMC) Z-score e a utilização de ecrãs em crianças de escolas primárias em contexto de vulnerabilidade social.

METODOLOGIA: Este estudo foi realizado no âmbito do projeto alargado BeE-school, que incluiu 10 escolas primárias em condições de maior vulnerabilidade (Territórios Educativos de Intervenção Prioritária). A massa corporal e a estatura da criança foram avaliadas por profissionais treinados, utilizando procedimentos padronizados. O IMC Z-score foi calculado segundo os critérios da Organização Mundial da Saúde. Relativamente à utilização de ecrãs, os pais responderam ao questionário ScreenQ (0-27 pontos), anteriormente adaptado e validado para crianças portuguesas, sendo que pontuações mais elevadas indicam maior risco de efeitos adversos. O nível de escolaridade e IMC da mãe e do pai foram auto-reportados. Foram realizados modelos de regressão linear, sendo a variável dependente o IMC Z-score da criança e o preditor a pontuação do ScreenQ. O modelo foi também ajustado para as seguintes variáveis: sexo e idade da criança, o IMC e educação da mãe e do pai.

RESULTADOS: A amostra é constituída por 735 crianças (51,7% rapazes; 38,5% apresentava excesso de peso), com uma idade de 7,7 (DP=1,2) anos. Num dia normal, as crianças usam TV/vídeos, jogos de vídeo/computador ou aplicações durante 1h30 (P25-P75: 1h00-2h00). A pontuação média no ScreenQ foi de 10,3 (DP=4,0). Esta associou-se significativamente a valores de IMC Z-score mais elevados (B=0,064; IC95%: 0,034; 0,094). Mesmo após o ajuste para potenciais confundidores (B=0,050; IC95%: 0,020; 0,080).

CONCLUSÕES: Este estudo reforça a importância da promoção de estilos de vida saudáveis, sensibilizando para as consequências negativas do uso de ecrãs, nomeadamente no estado ponderal das crianças.

CO8. HYPERPARATHYROIDISM, SERUM PHOSPHORUS AND DIETARY INTAKE IN HEMODIALYSIS PATIENTS: IS THERE A NOVEL RELATIONSHIP?

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INTRODUCTION AND OBJECTIVES: Hyperparathyroidism is a common complication in patients undergoing maintenance hemodialysis (HD). Despite there being little evidence about the relationship between intact parathyroid hormone (iPTH) levels and nutritional status, the intervention frequently focusses on appropriate management of mineral and bone markers. This study aimed to investigate the association between iPTH, serum phosphorus and dietary intake.
METHODOLOGY: This was a cross-sectional, multicenter, observational study with 561 HD patients. Clinical parameters, body composition and dietary intake were assessed. Patients were divided into 3 groups: iPTH<130; iPTH 130-585; iPTH >585 pg/mL. The association between PTH, serum phosphorus and dietary intake was analyzed with linear regression models. A p-value <0.05 was considered statistically significant.
RESULTS: Patients' mean age was 68±14 years, median HD vintage was 65 (IQR: 43-106) months and 58.8% were men. 59.3% and 23.2% of all patients presented an iPTH between 130-585 pg/mL and >585 pg/mL, respectively. Patients with higher iPTH levels had higher HD vintage (p=0.021) and lower age (p=0.002); higher serum phosphorus (p=0.005), calcium (p=0.027), Ca/P product (p<0.001), albumin (p=0.016) and caffeine intake (p=0.009). Moreover, a lower dietary intake of phosphorus (p=0.044), fiber (p=0.047), riboflavin (p=0.031) and folate (p=0.011) were observed in patients with higher iPTH levels. Higher serum phosphorus predicted higher iPTH levels, even in the adjusted model (p=0.019). However, when adjusted to age, gender, serum phosphorus, dialysis adequacy and dialysis vintage, a lower phosphorus intake was a predictor of higher iPTH levels (p=0.035). The same result was observed when considering dietary fiber intake in the model (p=0.048). No significant differences in body composition parameters were observed.
CONCLUSIONS: Despite higher serum phosphorus being observed in patients with Hyperparathyroidism, lower dietary intakes of phosphate and fiber predicted higher iPTH values. Moreover, a poorer dietary intake, considering riboflavin and folate was observed in the HPTH group.

CO9. NUTRITIONAL AND DIETARY INTERVENTION IN THE EVOLUTION OF NUTRITIONAL STATUS AND FRAILTY IN TWO UNITS OF THE NATIONAL NETWORK OF INTEGRATED CONTINUED CARE

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INTRODUCTION: Malnutrition is a prevalent issue among the elderly worldwide, with about 25% of individuals at risk or already affected by it. In aging, malnutrition is associated with several conditions, including frailty. Frailty is primarily linked to the inflammatory process associated with ageing, chronic medical conditions, and their interaction with the environment.
OBJECTIVES: Assess the nutritional status and presence of frailty in elderly patients upon admission and discharge. Evaluate their progress throughout their hospital stay and relate it to any nutritional interventions.
METHODOLOGY: This cross-sectional study involved 61 inpatients over the age of 60. Clinical and social data were collected through interviews within 72 hours of admission and monthly until discharge, between January and July 2023. Nutritional status was assessed using the Mini Nutritional Assessment (MNA), and frailty was evaluated using the five criteria of Fried's Frailty. A multidisciplinary intervention and nutrition therapy were implemented, including personalized diets and oral nutritional and modular supplementation when necessary.
RESULTS: The hospital stay varied: 29 days n= 61; 58 days n= 20; 87 days n= 12. The MNA mean at the admission was 16.0, with a positive progression of 3.3 and with a significant negative correlation between hospital stay and unit reference, at the 29th follow-up. The MNA score for patients who were offered nutritional supplementation, improved significantly ($t(60) = -5.33$; $p < 0.001$). On admission, 93.4% of the participants were frail and it was found significant correlation with the hospital stay. Frailty on admission is related to worse nutritional status.
CONCLUSIONS: Upon admission, patients exhibit a high prevalence of both frail ty and malnutrition. The MNA score on admission can be used to guide the nutrition intervention. Additionally, there is a positive correlation between the MNA and Frailty criteria, indicating a link between nutritional status and frailty syndrome.

CO10. DAILY USE OF OLIVE OIL IS ASSOCIATED WITH BETTER CARDIAC REVERSE REMODELING IN PREGNANT WOMEN

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INTRODUCTION: During pregnancy, the left ventricle (LV) of women hypertrophies to increase cardiac output, thereby coping with the needs of the growing fetus. During postpartum, the heart should return to its pregestational morphology and size, a process called cardiac reserve remodeling (CRR). Very few studies explored the association of maternal diet with this physiological adaptation.
OBJECTIVES: The present study aimed to associate maternal diet with CRR.
METHODOLOGY: Pregnant women from the prospective birth cohort PERIMYR-OralBioBorn were recruited in Porto between 2019 and 2021. Cardiac mass regression was calculated as the percentage of variation of LV mass between 6 months postpartum and the third trimester and evaluated by transthoracic echocardiography. The daily consumption of olive oil during pregnancy was assessed by food frequency questionnaire. Multivariate linear regression was used to search for potential "predictors" of postpartum mass regression.
RESULTS: A total of 50 pregnant women with a mean ± SD age of 34.7 ± 5.3 years old were included in this study. In general, the LV mass regressed by 17.7%. No correlations were found between the percentage of CRR and pregestational weight, gestational weight gain, and postpartum weight retention. Regarding maternal diet, we found that women who consume daily olive oil during pregnancy had a higher percentage of CRR at 6 months after birth (crude OR [95% CI] = -9.70 [-18.6 – -0.8]; p=0.034). When adjusted for maternal age and gestational weight gain, the association maintains statistical significance (OR [95% CI] = -10.2 [-19.3 – -1.1]; p=0.029).

CONCLUSIONS: Our results strengthen the importance of diet during pregnancy for women's health, namely the use of olive oil as the main source of dietary fat to enhance cardiac mass recovery postpartum. This study further reinforces the Mediterranean Diet as a beneficial lifestyle choice. Further studies should validate these findings.

CO11. mNUTRIC SCORE E MORTALIDADE: HAVERÁ RELAÇÃO?

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INTRODUÇÃO: A rápida deterioração do estado nutricional (EN) no doente crítico (DC) exige a implementação de um sistema de rastreio e monitorização precoce do EN, permitindo uma intervenção nutricional atempada, minimizando o impacto da desnutrição no desfecho clínico destes doentes.

OBJETIVOS: Determinar qual a relação entre o resultado da ferramenta de rastreio nutricional *Modified Nutrition Risk in Critically Ill Score* (mNUTRIC Score) e o *outcome* clínico em UCI.

METODOLOGIA: Estudo observacional prospetivo realizado numa UCI polivalente do CHUSJ, englobando 55 doentes com idade igual ou superior a 18 anos. O mNUTRIC Score, única ferramenta de rastreio nutricional validada para UCI, foi aplicada nas primeiras 48 horas após admissão do DC na UCI e recolhidos todos os parâmetros clínicos necessários ao seu preenchimento. Foram ainda recolhidos dados sociodemográficos, antropométricos e calculado o Índice de Massa Corporal (IMC) dos participantes.

RESULTADOS: Amostra composta por 54,5% (30) indivíduos do sexo masculino e 45,5% (25) indivíduos do sexo feminino, com idades compreendidas entre os 18 anos e os 89 anos (64±20 anos). Observou-se a prevalência de excesso de peso em 34,5% indivíduos, obesidade em 12,7% e por fim, 1,8% dos indivíduos apresentava baixo peso.

Critérios de gravidade: xx% segundo SOFA e xx% APACHE.

Do ponto de vista da avaliação do risco nutricional o mNUTRIC Score mostrou a prevalência de 23,6% de indivíduos em risco. Adicionalmente, este score apresentou correlação com a taxa de mortalidade (rs= 0,282; p = 0,043). No entanto, após efetuar a análise estatística de estimativa de risco, verificou-se que o valor obtido não teve significado estatístico ((IC95% = [0,056; 1,009]).

CONCLUSÕES: Embora diversos estudos identifiquem o mNUTRIC Score como um bom preditor de mortalidade aos 28 dias, os resultados deste trabalho não permitem considerar esta ferramenta de rastreio como um instrumento preditor de mortalidade.

CO12. RISK OF UNDERNUTRITION IN A CROSS-SECTIONAL MULTICENTRE SAMPLE OF AMBULATORY CHRONIC HEART FAILURE PATIENTS

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INTRODUCTION: Undernutrition is commonly prevalent in patients with Heart Failure (HF) and is associated with adverse outcomes, but few data exist. Older HF patients are more prone to undernutrition, which has a major influence on worse quality of life and increased mortality.

OBJECTIVES: To characterise undernutrition risk and its association with clinical and nutritional status in a sample of Portuguese ambulatory HF patients.

METHODOLOGY: Within the NUTRIC study, a multicentre sample of ambulatory HF patients was consecutively selected. Undernutrition risk was assessed using the Mini Nutritional Assessment-Short Form for patients aged ≥65 years old, and the Malnutrition Universal Screening Tool score for all other adults. Body mass index (BMI) was calculated. Mid-upper arm muscle circumference (MUAC) was calculated from the arm circumference and tricipital skinfold. Associations between clinical and nutritional status and the risk of undernutrition was assessed using logistic regression models, further adjusted for gender, age, type 2 diabetes (T2D) and for HF phenotype.

RESULTS: This study included 197 participants (47.5% women, 70.8±12.7 years old, BMI=29.3±5.9 kg.m-2), 37.6%, 22.0% and 40.3% with HF with preserved, mildly reduced or reduced ejection fraction, respectively, and 33.0% were at medium or high risk of undernutrition, which affected mainly women (63.1% *vs*. men at 36.9%, p<0.001). In multivariable analysis, being a woman was associated with risk of undernutrition (OR=2.68, 95%CI=1.26-5.68). For every cm increase in MUAC, the odds of having undernutrition risk decreased by 16% (OR=0.84, 95%CI=0.74-0.95). T2D was associated with a reduced odds of being undernourished (OR=0.48, 95%CI=0.23-0.98). Age, HF phenotype and congestive status were not associated with undernutrition in this sample.

CONCLUSIONS: Two thirds of the women versus one third of the men in this sample were at risk of undernutrition. This gender inequality should be taken in consideration regarding assessment of clinical status, intervention and monitoring in these HF patients.

ACKNOWLEDGEMENTS: This work is financed by national funds through Fundação para a Ciência e a Tecnologia, I.P. (FCT), within the scope of the project "RISE" [reference LA/P/0053/2020], and through the European Regional Development Fund (ERDF), within the North Regional Operational Program (NORTE 2020), in the framework of the project "HEALTH-UNORTE: Setting-up biobanks and regenerative medicine strategies to boost research in cardiovascular, musculoskeletal, neurological, oncological, immunological and infectious diseases" [reference NORTE-01-0145-FEDER-000039]. MCR is a receiver of a doctoral grant by FCT [reference 2023.01790.BD].

CO13. APORTE NUTRICIONAL DE DOENTES COM EPILEPSIA: ANÁLISE COMPARATIVA ENTRE INGESTÃO E RECOMENDAÇÕES NUTRICIONAIS

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INTRODUÇÃO: O doente epilético possui um particular risco de défices nutricionais, dadas as alterações no movimento e/ou função corporal, estado de consciência e/ou comportamento, provocadas pelas crises epiléticas, bem como efeitos colaterais organoléticos, modificações no metabolismo e/ou absorção de micronutrientes advenientes dos fármacos antiepiléticos. Atualmente, os dados

existentes sobre o aporte nutricional deste grupo de indivíduos são escassos, tornando-se essencial a sua avaliação e caracterização da adequação, de forma a planear e desenvolver intervenções nutricionais precoces e orientadas às necessidades específicas deste grupo populacional.

OBJETIVOS: Avaliar e quantificar a ingestão nutricional de doentes adultos epiléticos e sua adequação face às recomendações vigentes.

METODOLOGIA: Estudo observacional descritivo realizado entre 09/2022 e 01/2023 em doentes com epilepsia seguidos em consulta externa no Centro Hospitalar Universitário de São João. Foram medidos peso e altura, com consequente classificação do Índice de Massa Corporal (IMC) e aplicado o Questionário de Frequência Alimentar (QFA) semi-quantitativo validado para a população adulta portuguesa.

RESULTADOS: Amostra de 84 doentes (56% homens), com idade média de 43 anos (DP=15). A prevalência de baixo peso foi de 6,0% e quase metade da amostra (47,7%) tinha excesso de peso. Verificaram-se diferenças significativas entre a ingestão e as recomendações nos seguintes micronutrientes, em ambos os sexos: biotina [homens (H): 9,5 mcg/dia, p<0,001| mulheres (M): 10,1 mcg/dia, p<0,001; com 98,8% de inadequação face aos valores referência]; vitamina D [(H): 4,7 mcg/dia, p<0,001| (M): 6,7 mcg/dia, p<0,001, com 98,8% de inadequação]; vitamina K [(H): 16,2 mcg/dia, p<0,001| (M): 17,8 mcg/dia, p<0,001, com 100% de inadequação]; iodo [(H): 71,6 mcg/dia, p<0,001| (M): 68,9 mcg/dia, p<0,001, com 88,1% de inadequação] e sódio [(H): 3,8 g/dia, p<0,001| (M): 4,2 g/dia, p<0,001, com 86,9% acima do valor de ingestão adequada].

CONCLUSÕES: Verificou-se uma elevada inadequação no aporte de vitamina D, vitamina K, biotina, iodo e sódio em doentes epiléticos.

or more of the following criteria: weakness; slowness; exhaustion and fatigue; low physical activity, and unintentional weight loss. Individuals with one or two of these criteria were classified as prefrail. New York Heart Association (NYHA) functional class was registered. Ordinal regression models were computed with three categories of frailty as dependent variable: robust, prefrail and frail (reference category). The model included NYHA class and sex, age, body mass index and comorbidities as covariables. Results are expressed as cumulative odds ratio (OR) and respective 95% confidence intervals (CI).

RESULTS: A total of 207 ambulatory HF patients (44.4% women, 71±12.47 years old) were included. Pre-frailty and frailty accounted for 65.7% and 30.0% of the sample, respectively. A total of 28.1%, 56.8% and 15.1% were in NYHA class I, II and III, correspondingly. In relation to NYHA III patients, the odds of having higher frailty classification decreased by 72% in NYHA II participants (OR=0.28; 95%CI=0.11-0.74), and by 87% in NYHA I patients (OR=0.13; 95%CI=0.04-0.41).

CONCLUSIONS: NYHA functional class seems to be an important predictor of frailty in ambulatory HF patients: the worse the class, the higher the likelihood of being prefrail or frail. Functional classification should be considered during the intervention plan to allow reversing or modifying frailty.

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CO14. PHYSICAL FRAILTY AND ITS ASSOCIATION WITH CLINICAL STATUS IN A MULTICENTRE CROSS-SECTIONAL STUDY OF PORTUGUESE AMBULATORY HEART FAILURE PATIENTS: FINDINGS FROM THE NUTRIC PROJECT

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INTRODUCTION: Frailty phenotype is very common in heart failure (HF) patients and forecast worse clinical outcomes, such as readmission, length of stay in hospital and/or mortality. Nonetheless, data concerning the frequency of this syndrome, and its association with clinical status in Portuguese HF patients are lacking.

OBJECTIVES: To describe the association between frailty and clinical status in HF patients.

METHODOLOGY: Data from the NUTRIC project for this cross-sectional multicentre study included a sample of ambulatory HF patients recruited from three hospital centres. Frailty was assessed according to Fried *et al*. by the presence of three

CO15. ASSOCIATION OF HANDGRIP STRENGTH WITH NYHA FUNCTIONAL CLASSIFICATION IN A MULTICENTRE CROSS-SECTIONAL STUDY OF PORTUGUESE AMBULATORY HEART FAILURE PATIENTS: FINDINGS FROM THE NUTRIC PROJECT

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INTRODUCTION: Low handgrip strength (HGS) is associated with poor clinical outcomes in heart failure (HF). Notwithstanding, all the relevant developments concerning the predictive significance of HGS in HF, studies concerning the association of this muscle strength biomarker with clinical status in HF remain scarce.

OBJECTIVES: This study aims to describe the association between HGS and NYHA functional class in ambulatory HF patients.

METHODOLOGY: Data from the NUTRIC project for this cross-sectional multicentre study included a sample of ambulatory HF patients recruited from three hospital centres. HGS was measured with the GripWise dynamometer. Low HGS was

categorised as <16 kgF in women and <27 kgF in men according to the revised European Working Group on Sarcopenia in Older People consensus. New York Heart Association (NYHA) functional classes were registered. Ordinal regression models were computed with three categories of NYHA as dependent variable: NYHA I, NYHA II, and NYHA III (reference category). The model included sex, age, comorbidities (diabetes, dyslipidaemia, hypertension), incidental stroke, congestion, and atrial fibrillation as independent variables. The results are expressed as cumulative odds ratio (OR) and respective 95% confidence intervals (CI).

RESULTS: Data from 207 ambulatory HF patients were analysed (44.4% women, 71±12 years old). 74.4% of the women and 68.5% of the men presented low HGS values. Mean HGS was 19.1±8.4 kgF, (men: 23.7±8.0 kgF; women: 13.3±12.9 kgF, p<0.001). A total of 28.1%, 56.8% and 15.1% were in NYHA class I, II and III, respectively. For every 1 kgF increase in HGS, the likelihood of being allocated in a higher NYHA class decreased by 8% (OR=0.92; 95%CI=0.86, 0.98).

CONCLUSIONS: In this study, higher HGS was associated with better NYHA functional class in ambulatory HF patients. Further investigations regarding the possible prognostic importance of HGS in these patients are warranted.

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CO16. THE SARC-F QUESTIONNAIRE SEVERELY MISSCLASSIFIES THE RISK OF SARCOPENIA IN A MULTICENTRE SAMPLE OF AMBULATORY HEART FAILURE PATIENTS

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INTRODUCTION: Sarcopenia is very prevalent in heart failure (HF) and portends worst prognosis. The SARC-F questionnaire, a screening instrument for assessing the risk of sarcopenia, has low sensitivity and high specificity in hospitalised HF patients, but its performance was never tested in ambulatory HF settings.

OBJECTIVES: To study the agreement and validity of the SARC-F questionnaire against diagnosed sarcopenia, and each sarcopenia criteria, in a sample of ambulatory HF patients.

METHODOLOGY: This cross-sectional multicentre study consecutively sampled ambulatory HF patients in three tertiary hospitals. Sarcopenia was screened with SARC-F and diagnosed using the revised European Working Group on Sarcopenia in Older People consensus (EWGSOP2). Hand grip strength (HGS) was measured using a GripWise dynamometer. Muscle mass (MM) was estimated using calf-circumference and mid-upper arm muscle circumference. Gait speed (GS) was measured. Agreement was calculated using quadratic-weighted Kappa (K) estimations with 95% confidence intervals (95%CI). Validity tests would be performed whenever the agreement was K ≥ 0.60.

RESULTS: A total of 216 HF outpatients were included (45.4% women, 71.0±12.6 years old). The left ventricle ejection fraction was reduced, mildly reduced and preserved in 42.4%, 21.2%, and 36.5% of patients, respectively. SARC-F attributed risk of sarcopenia to 33.3%, 11.9% were diagnosed with sarcopenia, 71.1% had low HGS, 13.1% had low muscle mass and 46.8% had low gait speed. Agreement between SARC-F and sarcopenia (K=0.06; 95%CI=0.0-0.16), low HGS (K=0.17; 95%CI=0.09-0.25), low MM (K=0.04; 95%CI=0.0-0.14), and low GS (K=0.39; 95%CI=0.29-0.48), was consistently very low, hence, validity tests were not performed.

CONCLUSIONS: The SARC-F questionnaire was inadequate to screen for sarcopenia among these outpatients with chronic HF. Instead, HGS <16 kgF in women and <27 kgF in men, should be used to identify probable sarcopenia according to EWGSOP2 in ambulatory settings and to start immediate intervention.

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CO17. WHICH FREE FAT MASS BIOIMPEDANCE REGRESSION EQUATION BETTER ESTIMATES DXA-DERIVED LEAN BODY MASS IN A SAMPLE OF HEALTHY COMMUNITY-DWELLING PORTUGUESE INDIVIDUALS?

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INTRODUCTION: Bioelectric impedance analysis (BIA) relies on regression equations to estimate fat free mass (FFM), and while equations for older adults and/or hospitalised individuals are widely used in research and clinical settings, the most appropriate equations for estimating FFM of Portuguese community-dwelling healthy adults are not described in the literature.

OBJECTIVES: To identify the existing BIA regression equations that better estimate FFM in a healthy, community-dwelling sample of Portuguese adults, using dual energy x-ray absorptiometry (DXA)-derived total lean body mass (LBM) as reference.

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.

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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.

TABLE 1

Sample data

SAMPLE DATA			
Age (years)		mean (strandard desviation)	76.2 ± 11.8
Gender	Feminine	relative frequency (%)	50% (n=37)
	Masculine		50% (n=37)
Length of stay (days)		mean (strandard desviation)	14.1 ± 19.3

SAMPLE AVERAGE FOOD WASTE						
MEAL COMPONENTS	FOOD WASTE		OVER CAPITALIZATION		UNDER CAPITALIZATION	
	%	MEAN (g)	%	MEAN (g)	%	MEAN (g)
Soup	52.5	186.5	100	92.8	0	0
Dish	66.3	212.9	36.5	41	63.5	45
Dessert	32.9	51.9	71.6	14	28.4	8.9

TABLE 1

Energy and nutritional intake, according to sex

	TOTAL (N=71) (MEAN ± SD)	BOYS (N=39) (MEAN ± SD)	GIRLS (N=32) (MEAN ± SD)	P-VALUE[a,b]
Energy (kcal)	239.1 ± 92.4	235.8 ± 86.7	243.1 ± 100.0	0.528
Protein (g)	8.1 ± 3.7	8.8 ± 3.6	7.3 ± 3.8	**0.048***
Total Fat (g)	7.1. ± 4.7	6.8 ± 3.9	7.4 ± 5.5	0.880
Saturated fatty acids (g)	3.4 ± 2.2	3.3 ± 1.7	3.6 ± 2.7	0.935
Carbohydrates (g)	34.5. ± 13.4	33.7 ± 12.2	35.4 ± 15.1	0.608
Sugars (g)	17.6 ± 9.4	18.6 ± 7.9	16.4 ± 10.9	0.322
Fiber (g)	1.9 ± 1.4	1.6 ± 1.1	2.5 ± 1.5	**0.009***
Salt (g)	0.6 ± 0.4	0.6 ± 0.4	0.7 ± 0.5	0.521

SD: Standard deviation
[a] T-student test to compare carbohydrates and sugars between sex
[b] Mann-Whitney test to compare energy, protein, fat, saturated fatty acids, fibre and salt between sex
*p<0.005

CO23. NUTRITIONAL INTAKE OF CHILDREN´S MID-MORNING SNACKS: A CASE STUDY IN THE MUNICIPALITY OF FARO

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INTRODUCTION: Nutrition for school-aged children is essential for the development of healthy eating habits and lifestyle. Currently, the Directorate--General for Health (DGS) recommends the consumption of a mid-morning snack (MMS) that provides 5-10% of the daily energy requirements. However, data regarding the nutritional quality of MMS in Algarve region is scarce.

OBJECTIVES: To quantify the nutritional quality of children's MMS enrolled in the second grade in the Municipality of Faro.

METHODOLOGY: This observational study included a convenience sample, consisting of five second-grade classes. The dietary composition of MMS was assessed without previous notice and converted into energy and nutrients (protein, fat, saturated fatty acids, carbohydrates, sugars, fiber, and salt) using the Portuguese Food Composition Table. The provenience of the MMS (home or school) was questioned. The energy adequacy of MMS was categorized according to the DGS into: below (<82kcal), within (82-164kcal) or above (>164kcal) the reference value. Data collection was conducted in February 2024. Mann-Whitney and t-student tests were used. Statistical significance was set for p<0.05.

RESULTS: A total of 71 MMS were evaluated, mostly from boys (n=39; 54.9%) and prepared at home (n=38; 53.5%). It was found that boys had MMS with a higher protein content (8.8g±3.6g *vs*. 7.3g±3.8g, p=0.048), while girls presented meals with more fiber (2.5g±1.1g *vs*. 1.6 g±1.5g, p=0.009), as presented in Table 1. Additionally, it was observed that MMS provided by schools had a higher protein content when compared to those brought from home (9.8g±2.7g *vs*. 6.6g±3.9g, p<0.001). Furthermore, it was verified that only 15.5% of the MMS met the reference values, while 78.9% exceeded the acceptable value.

CONCLUSIONS: These results highlight the urgent need for developing and implementing food policies and dietary education interventions to promote the adequacy of the MMS dietary composition in schools in the Municipality of Faro.

CO24. CRESCE ATIVO E SAUDÁVEL: UM PROGRAMA MULTIDISCIPLINAR DE PRESCRIÇÃO DE ATIVIDADE FÍSICA E ACONSELHAMENTO ALIMENTAR PARA CRIANÇAS COM PRÉ-OBESIDADE E OBESIDADE IMPLEMENTADO EM PARCERIA ENTRE A CÂMARA MUNICIPAL DE MAFRA E A UNIDADE DE SAÚDE PÚBLICA DE MAFRA

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INTRODUÇÃO: A obesidade infantil é um problema crescente de Saúde Pública em Portugal. Existe evidência de que programas multidisciplinares, que incluam atividade física e aconselhamento nutricional têm impacto positivo nos hábitos, bem-estar e redução da prevalência de excesso de peso e obesidade.

OBJETIVOS: Avaliar o impacto de uma intervenção multidisciplinar, de base comunitária, na frequência da prática de atividade física e hábitos alimentares, em crianças do 3º ano de escolaridade.

METODOLOGIA: Foi realizada avaliação antropométrica dos alunos do 3º ano do concelho de Mafra. As crianças com pré-obesidade e obesidade foram convidadas a integrar o projeto composto por consultas de prescrição de atividade física, com gratuitidade nas atividades desportivas do município, consultas de nutrição e sessões de educação alimentar em sala de aula. Comparámos as características antropométricas, hábitos alimentares e de atividade física no início e no fim da intervenção, utilizando o teste McNemar (proporções) e t-student emparelhado (médias).

RESULTADOS: Dos 894 alunos, 641 (72%) apresentaram consentimento informado e foram avaliados. Desses, 129 (20,1%) apresentavam pré-obesidade e 70 (10,9%) obesidade. Entre os alunos com excesso de peso, 77 (38,7%) estiveram presentes nos dois momentos de intervenção (tempo médio entre avaliações 67 dias). Quando comparados os dois momentos, constatou-se um aumento da frequência semanal de atividade física extracurricular ($\bar{x}$ 1,2 *vs.* 1,9 p<0,001), redução da prevalência de ausência de atividade física extracurricular (37,7% *vs.* 19,5% p=0,032), aumento no Score de adesão à Dieta Mediterrânica ($\bar{x}$ 8,2 *vs.* 9,5 p<0,001) e redução no Percentil de IMC ($\bar{x}$ 90,9 *vs.* 89,1 p<0,001).

CONCLUSÕES: A implementação de programas comunitários multidisciplinares entre Municípios e Serviços de Saúde, com aconselhamento nutricional e atividade física demonstrou um impacto positivo em vários indicadores de saúde e hábitos das crianças. É necessário prolongar a intervenção e melhor caracterizar o seu impacto para e promover boas práticas.

CO25. COMPORTAMENTOS ALIMENTARES DISFUNCIONAIS E SAÚDE CARDIOMETABÓLICA DA ADOLESCÊNCIA AO INÍCIO DA IDADE ADULTA – RESULTADOS DA COORTE EPITEEN

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INTRODUÇÃO: Os comportamentos alimentares disfuncionais assumem especial relevância na adolescência. Contudo, pouco se sabe sobre a agregação e evolução das suas diferentes dimensões, e quais os efeitos na saúde cardiometabólica futura.

OBJETIVOS: Avaliar a associação de trajetórias de comportamentos alimentares disfuncionais, dos 13 aos 21 anos, com componentes da saúde cardiometabólica aos 21 anos.

METODOLOGIA: Os participantes integram a coorte de base populacional EPITeen, no Porto (n=1619). As dimensões 'Impulso pela magreza', 'Insatisfação corporal' e 'Bulimia' foram avaliadas pelo questionário 'Eating Disorder Inventory' aos 13, 17 e 21 anos e, através de uma análise de classes latentes, definiram-se grupos de trajetórias de comportamentos alimentares disfuncionais, designados perfis. Os *outcomes* aos 21 anos incluíram o Índice de Massa Corporal (IMC) (calculado a partir da medição de peso e altura) e ter ≥1 das 5 componentes da síndrome metabólica (SM) definidas pela *International Diabetes Federation*. Utilizaram-se modelos lineares generalizados e regressões logísticas binárias para avaliar as associações, após ajuste para potenciais confundidores.

RESULTADOS: Aos 21 anos, a mediana de IMC foi de 22,3 kg/m^2 e 24% dos indivíduos apresentaram ≥1 componente SM. Foram identificados quatro perfis: comportamentos alimentares disfuncionais 'mais elevados' (18,6%), 'crescentes' (27,6%), 'decrescentes' (18,7%) e 'mais baixos' (35,1%). Considerando o perfil de níveis 'mais baixos' como referência, ambos os sexos, mas particularmente homens com níveis de comportamentos alimentares disfuncionais 'mais elevados' e 'crescentes', apresentaram um maior IMC aos 21 anos. Adicionalmente, homens com níveis de comportamentos alimentares disfuncionais 'mais elevados' (OR=4,50; IC95% 2,48-8,14) e 'crescentes' (OR=2,21; IC95% 1,50-3,26) apresentaram também maiores odds de ter ≥1 componente SM. Mulheres no perfil de níveis 'mais elevados' mostraram 116% maiores odds (IC95% 1,44-3,24) de ter ≥1 componente SM.

CONCLUSÕES: Indivíduos, principalmente homens, com níveis de comportamentos alimentares disfuncionais mais elevados ou crescentes da adolescência ao início da idade adulta, apresentaram pior saúde cardiometabólica aos 21 anos.

CO26. THE IMPACT OF GESTATIONAL WEIGHT GAIN ON ASTHMA, RHINITIS, AND ECZEMA UP TO THE AGE OF 13 YEARS

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INTRODUCTION: Maternal pre-pregnancy overweight or obesity has been suggested to increase the risk of having childhood asthma. Nonetheless, the specific influence of gestational weight gain on other allergic conditions has been poorly explored.

OBJECTIVES: We aimed to assess the impact of gestational weight gain (GWG) on the presence of asthma, rhinitis, and eczema up to adolescence.

METHODOLOGY: A total of 5481 mother-singleton child pairs from the Geração 21, a population-based longitudinal birth cohort, were included in the analysis. Adequate GWG was assessed according to the 2009 Institute of Medicine (IOM) guidelines for GWG, and based on the reported weights at the start and conclusion of pregnancy. Asthma, rhinitis, and eczema status were determined based on medical diagnoses reported by parents. The associations between the adequacy of GWG with the odds of having an allergic disease at 4 (n=5481; 49.4% girls), 7 (n=5170; 49.3% girls), 10 (n=4838; 49.3% girls), and 13 years old (n=3524; 48.7% girls) were assessed using logistic regression adjusted models.

RESULTS: From the 5481 mothers included in the analysis, 1994 (36.4%) exceeded the GWG recommendation. After adjusting for sex, maternal education, mode of delivery, exclusive breastfeeding duration, maternal pre-pregnancy asthma diagnosis, and maternal smoking during pregnancy, children whose mothers surpassed the recommended weight gain limit had higher odds of rhinitis at age 4 (OR=1.41; CI%95 1.08-1.84), lower odds of eczema by the age of 7 (OR=0.84, CI%95 0.71-0.996), and higher odds of asthma at ages 10 (OR=1.32; CI95% 1.07-1.63) and 13 years old (OR=1.30; CI95% 1.03-1.64).

CONCLUSIONS: Our findings support an association between excessive GWG and increased asthma risk, particularly at ages 10 and 13. These findings emphasize the importance of monitoring maternal weight gain as a potential risk factor in childhood asthma development.

CO27. COMPOSIÇÃO NUTRICIONAL DE REFRIGERANTES NA UNIÃO EUROPEIA

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INTRODUÇÃO: O consumo de refrigerantes com alto teor de açúcar e com pouco interesse nutricional continua a ser alvo de investigação, dada a sua potencial associação com a prevalência de excesso de peso e obesidade.

Existem evidências que mostram diferenças significativas na composição nutricional dos refrigerantes comercializados no espaço europeu, verificando-se também que o mesmo produto, com o mesmo nome comercial, pode ter diferentes composições nutricionais em diferentes mercados.

OBJETIVOS: Este trabalho teve como objetivo geral analisar a composição nutricional dos refrigerantes comercializados nos países da União Europeia (EU).

METODOLOGIA: Através da consulta da informação disponibilizada online pelas marcas e estabelecimentos comerciais, considerando a obrigatoriedade legal para disponibilização de declaração nutricional, recolheu-se informação sobre a composição nutricional de 9 marcas de refrigerantes comercializados nos 27 países da EU. Construiu-se uma base de dados, analisada com o *software* IBM-SPSS, versão 29.0.

RESULTADOS: Obteve-se informação nutricional para 524 refrigerantes, distribuídos por 9 marcas diferentes. Excluindo os refrigerantes comercializados como sendo *light* ou sem açucares adicionados, registou-se um teor médio de 6,9±3,94 g de açucares por cada 100 mL, o que corresponde a aproximadamente 23 g de açucares numa lata de 330 mL. Para além da água, os açúcares são o ingrediente mais comum nos refrigerantes deste tipo. O refrigerante Fanta Laranja foi identificado como o produto que apresenta maior amplitude no teor em açúcares: de 4,5 g, em Portugal, a 11,8 g, em Itália. Apesar das diferenças no teor de açúcar deste refrigerante entre países não serem consideradas estatisticamente significativas (p>0,05), podem ser nutricionalmente importantes. No geral, a Bulgária e a Eslováquia apresentam refrigerantes com maior teor de açucares. Não se encontrou uma correlação estatisticamente significativa entre o preço e o teor de açúcares (r=0,086; p=0,136), nem diferenças significativas no preço entre refrigerantes na fórmula original ou na versão com baixo teor de açúcares (U=1,79; p=0,073).

CONCLUSÕES: No geral, os refrigerantes não-*light* apresentam um teor de açúcares elevado. Alguns produtos, apesar de terem o mesmo nome comercial, apresentam diferenças na composição nutricional entre países da UE. Ainda que as diferenças na composição nutricional não sejam estatisticamente significativas, podem ser nutricionalmente importantes e relevantes para futuras políticas de saúde promotoras de saúde nutricional.

CO28. UNDERSTANDING THE INFLUENCE OF BREASTFEEDING DURATION ON THE TIMING OF PUBERTY ONSET

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INTRODUCTION: Breastfeeding has been associated with a reduced risk of several health outcomes during childhood, but the findings of the potential consequences on pubertal timing are not always consistent.

OBJECTIVES: To clarify the association between exclusive and non-exclusive breastfeeding duration (BD) and earlier puberty onset (PO).

METHODOLOGY: The sample includes 4890 children from the Portuguese birth cohort Generation XXI, with complete information on exclusive and non-exclusive BD, collected at 6-, 15-, 24-month subsample and 4 years (y) follow-up, and on PO assessed by trained nurses at 10y by physical exam, following the Tanner stages criteria. The association between BD and PO was conducted using Tanner stages as a continuous and categorized according to the child's exact age as 'Normal puberty' or 'Early puberty'. Linear regression models adjusted for the child's exact age, were used to estimate the association between BD and the continuous Tanner stages. Logistic binary regression models were employed to estimate the association between BD and the categorical Tanner stages. Both analyses were adjusted for maternal age and education, maternal age at menarche, child's birth weight, and child's Body Mass Index z-score (zBMI) at 10y.

RESULTS: The mean exclusive and non-exclusive BD was 3.1 and 7.2 months, respectively. Early PO at 10y was observed in 13.2% of girls and 2.2% of boys. A longer duration of exclusive breastfeeding was associated with a lower probability of PO at 10y in girls (β=-0.018; 95%CI: -0.032;-0.004) but not for boys. When comparing early and normal and developers at 10y, the odds of being in the 'Early Puberty' category decreased for both exclusive (OR=0.930; 95%CI:0.875;0.988) and non-exclusive (OR=0.983; 95%CI:0.966;0.998) BD in girls. However, the associations ceased after adjusting for zBMI.

CONCLUSIONS: The study findings suggest that a longer breastfeeding is a protective factor against early puberty, especially among girls.

CO29. PRENATAL SUPPLEMENTS IN PORTUGAL: IODINE AVAILABILITY FROM PHARMACY DISPENSES

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INTRODUCTION: In countries without sufficient iodized salt coverage, as Portugal, iodine supplementation is recommended for populations at risk. Portuguese health authorities recommend the supplementation of folic acid, iodine, and iron to be considered and adjusted by the physician during preconception, pregnancy, and lactation. Despite the recommendation, recent studies show that Portuguese pregnant women are still iodine deficient.

OBJECTIVES: To evaluate iodine-containing supplement sales and iodine availability through dispenses in Portuguese pharmacies. To characterize nutritional composition of prenatal supplements not subject to prescription.

METHODOLOGY: Data from supplement sales in Portuguese pharmacies since 2008 was provided by CEFAR-ANF (Centre for Health Evaluation and Research, National Association of Pharmacies), product information was complemented with INFOMED (human medicinal products database) and Web research. Iodine, folic acid, and iron content was obtained through the label. Pharmacy dispenses of iodine supplements were collected from a sample of female consumers with at least one prescription associated to one fiscal number, between 2019 and 2021.

RESULTS AND CONCLUSIONS: Iodine-containing supplements represented 72% of prenatal supplement sales in 2023. Of 30 prenatal supplements, only 67% have iodine content as recommended. From 2008, the units of iodine-containing supplements sold increased ($F(1,12)=211$, $p<0.001$, $R2=0.94$), with a mean of 29% over the years. From a sample of 86012 women with dispenses between 2019 and 2021, mean duration of supplementation was 4.5 months (sd=3.8). Less than one percent is covered for the advisable period of 18 months. Despite not controlling purchases outside pharmacies (main limitation), these findings are in accordance with reported urinary iodine content in the pregnant population. Evidence is mounting for the need of additional measures for women to comply with the recommendations; healthcare professionals to inform on supplementation benefits, and health authorities to implement policies that ensure iodine sufficiency to the population (universal salt iodization).

CO30. THE IMPACT OF STEVIA CONSUMPTION DURING THE REPRODUCTIVE STAGE: A CARDIOMETABOLIC PERSPECTIVE

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INTRODUCTION: Stevia is a natural non-sugar sweetener (NSS) of which Rebaudioside A is a major sweetener component. The European Food Safety Agency (EFSA) suggests an adequate daily intake (ADI) of 4 mg steviol equivalents/kg body weight/day. Conversely, the World Health Organization recently recommended the restraint of using NSS, including stevia, highlighting the need to study safety in early periods of development.

OBJECTIVES: To study the cardiometabolic effects of stevia consumption during the reproductive stage of the female life cycle.

METHODOLOGY: Female Sprague Dawley rats were administered Rebaudioside A (4 mg steviol equivalents/kg body weight/day) in the drinking water from 4 weeks before mating until weaning (total 13 weeks) (S, n=8), or drinking water as control (C, n=8). Morphometry, food and water consumption, glucose and lipid homeostasis and heart structure and function were assessed.

RESULTS: Stevia consumption induced a decrease in heart weight (C *vs.* S: 26.8 ±0.05 *vs.* 25.0 ±0.04 mg/cm^2) and a 25% reduction of left ventricle wall thickness compared to C group. A decrease in cardiomyocyte cross-sectional area (C *vs.* S: 358.6 ±7.486 *vs.* 288.5 ±9.381 μm^2), cardiac interstitial fibrosis (C *vs.* S: 3.99 ±0.18 *vs.* 3.25 ±0.13 %), and perivascular fibrosis (C *vs.* S: 18.29 ±0.933 *vs.* 11.79 ±0.583 μm^2) were observed in S group, with no differences in cardiac function. Mitochondrial and myofilamentary functions were similar between groups. Glucose tolerance and insulin sensitivity were not different between groups, but fasting glycemia (C *vs.* S: 84.8 ± 3.04 *vs.* 72.8 ±2.18 mg/dL) and total plasma cholesterol (C *vs.* S: 84.13 ±6.04 *vs.* 67.75 ±2.46 mg/dL) were decreased in S group.

CONCLUSIONS: This work suggests that EFSA's ADI for stevia is safe for female consumption during the reproductive stage, from a cardiometabolic perspective. However, studies on its fetal programming effects are urgently needed.

CO31. AGREEMENT BETWEEN DIFFERENT DEFINITIONS OF SARCOPENIC OBESITY IN PORTUGUESE ADULTS

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OBJECTIVES: To estimate the prevalence of sarcopenic obesity (SO) in Portuguese adults and the agreement between different definitions.

METHODOLOGY: We analysed 1838 participants from EPIPorto - a population-based cohort of adults of Porto, with valid data in 1999-2003 or 2005. Fat mass (FM) and fat-free mass (FFM) were assessed by bioelectric impedance, and then calibrated against DXA using previously developed equations. FM and FFM cut points were estimated in the participants aged 20-39 years (reference population), and then applied to the remaining sample. Criteria tested were: obesity as BMI ≥ 30Kg/m^2, or as FM percentage ≥4th quintile; sarcopenia as total skeletal muscle mass index (SMI = FFM (kg) / weight(kg) x 100) <1 SD the sex-specific mean value of the reference group, or defined as FFM <1SD of the expected value of FFM based on FM and sex, estimated through a linear regression model. SO was considered when both obesity and sarcopenia were present in the same individual. The accuracy, kappa and the Mcnemar's Test were used to evaluate the agreement between definitions.

RESULTS: The prevalence of SO increased with age and was higher in males. Estimates were 0.8%, 2.9% and 12.4% when defined, respectively, as (1) BMI ≥ 30Kg/m^2 and FFM <1SD, (2) FM ≥4th quintile and FFM <1SD, and (3) based on the expected FFM. The highest agreement was between the first two definitions, with an accuracy of 97.9% (95% CI 97.1-98.5), above the expected (kappa=0.427) and a higher tendency for the classification (2) producing more positive SO cases (p<0.001). The second-best agreement was between definitions (2) and (3), with respective values of 90.0% (88.5-91.3), 0.311 and p<0.001.

CONCLUSIONS: The prevalence of SO was much higher with the new criterion proposed and further studies will explore its discrimination ability for the identification of cardiometabolic health outcomes.

CO32. EVALUATION OF THE EFFECTIVENESS AND COSTS OF A HEALTH PROMOTION PROGRAM IN PRIMARY SCHOOLS AND CHILDREN IN SOCIALLY VULNERABLE CONDITIONS - CLUSTER-RANDOMIZED STUDY (BEE-SCHOOL)

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INTRODUCTION: Obesity is a multifactorial disease whose prevalence has been increasing in Portugal and worldwide.

OBJECTIVES: To evaluate the cost-effectiveness of a school-based intervention concerning BMIz in children attending facing vulnerable conditions.

METHODOLOGY: This study involved 735 children (51.7% boys, average age 7.7 years old) from 10 primary schools of two school groups identified as Educational Territories for Priority Intervention. The schools were randomized into two groups: one receiving the intervention (4 schools) and the other not (6 schools). The intervention included educating and training teachers for 16 weeks, their implementation in the classroom, and giving families challenges biweekly. To assess the program's effectiveness, we measured the children's weight and height using standardized methods. Then we calculated their Body Mass Index (BMI) and BMIz, computed with World Health Organization LMS. We used Generalized Linear Model considering the outcome as the difference

in BMIz from baseline to post-intervention and the predictor as group allocation. We also adjusted for school groups, school level, length of time from baseline to post-intervention assessment, sex, age, and mothers' and fathers' education. The costs of the intervention included: design of the intervention, implementation, and evaluation. Subsequently, we calculated the Incremental Cost-Effectiveness Ratio (ICER). All costs were reported in 2023 euros price.

RESULTS: Intervened children had a significant reduction in BMIz, even after adjusting for confounders (b= -0.112, CI 95% -0.193 to -0.032). The cost per capita was 17.31€ for intervened children, the costs for the control group were considered null. Considering that the intervention group had a reduction in BMIz of 0.112 compared to the control group, we obtain an ICER of 154.55 euros per unit decrease in BMIz.

CONCLUSIONS: The school-based intervention, involving families, proved to be effective in improving body composition in socially vulnerable children. Further studies are needed to assess the long-term effects of the intervention.

CO33. NUTRITION CLAIMS - ASSOCIATION WITH NOVA AND NUTRI-SCORE SYSTEMS

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INTRODUCTION: Consumption of ultra-processed foods has been increasing due to its accessibility and convenience and nutrition claims are often present in these products, influencing consumers choice. Nutri-Score is a front package label information that helps consumers make healthier choices, informing them about the overall nutritional value of food products, but does not consider processing level as the NOVA system does.

OBJECTIVES: Analyse nutrition claims present in food products and their association with Nutri-Score and NOVA classifications.

METHODOLOGY: A cross-sectional study was conducted and nutritional information and nutrition claims were collected from 3679 products. NOVA classification was applied to these products and, whenever available, information of Nutri-score was collected from packages. In absence, Nutri-score was calculated using the nutritional information in packaging, according to Frances' Public Health tool.

RESULTS: Products were mainly classified as NOVA 4 (77%) and Nutri-Score D (23.6%). Also, 27.6% of products contained a nutrition claim and these were prevalent in products with Nutri-Score A (38.1%) and NOVA 4 (76.4%). The most prevalent nutrition claims were "with no sugars added" (6.7%), along with fiber content (5% and 3.9%), vitamin and/or mineral (5%) and protein claims (3% and 3.1%). Nutri-score D held more products with nutrition claims that were also classified as NOVA 4 (89.9%).

CONCLUSIONS: There is a high prevalence of nutrition claims in ultra-processed foods, that could influence the consumption of these products, even these products have a low nutritional quality. The presence of nutrition claims is also observed in products of low nutritional quality.

CO34. ADESÃO À DIETA MEDITERRÂNEA E PERFIL SOCIODEMOGRÁFICO, ANTROPOMÉTRICO E CLÍNICO EM ADULTOS PRÉ-DIABÉTICOS: UMA ANÁLISE TRANSVERSAL PRELIMINAR DO ESTUDO PREVENT

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INTRODUÇÃO: Em 2021 estimou-se que 6,2% da população mundial eram pré-diabéticos, representando 319 milhões de pessoas e que se prevê um aumento para 441 milhões. No entanto, esse aumento pode ser evitado, pois a pré-diabetes é reversível através de mudanças no estilo de vida, incluindo a adesão à Dieta Mediterrânea, que tem mostrado uma forte associação com um melhor controlo glicémico.

OBJETIVOS: Analisar a adesão ao padrão alimentar mediterrânico em adultos portugueses pré-diabéticos, e a sua associação com os parâmetros sociodemográficos, antropométricos e clínicos.

METODOLOGIA: Realizou-se uma análise transversal com o *baseline* do estudo clínico PREVENT (NCT05583045) realizado com pré-diabéticos(n=30), através de uma entrevistas presenciais e avaliação física que incluiu: dados sociodemográficos, clínicos, antropométricos, recordatório alimentar e de atividade física do dia anterior, com questões adicionais de frequência de consumo de alguns alimentos e sobre os hábitos de exercício físico moderado e vigoroso (IPAQ). Com base na entrevista, avaliou-se a adesão ao Padrão Alimentar Mediterrâneo (PREDIMED 0-14pontos), classificando-se em baixa<10/ alta>=10, a adesão às recomendações de atividade física moderada/vigorosa semanal da OMS, classificando-se em <150/>=150minutos/semana, e o risco de desenvolver diabetes tipo 2 (FINDRISC 0-26 pontos), classificando-se em 5 categorias de baixo a muito alto. Para avaliar a correlação entre utilizou-se o teste de correlação de *Pearson* ou *Spearman*.

RESULTADOS: Os pré-diabéticos com maior adesão ao padrão alimentar mediterrâneo eram os mais velhos (Rho=0,530; p=0,003), os que tomavam suplementos multivitamínicos (R=0,447; p=0,013) e tinham um menor risco de desenvolver diabetes tipo 2 (R=-0,388; p=0,034).

CONCLUSÕES: Os pré-diabéticos com uma alta adesão ao padrão alimentar mediterrânico apresentam menor risco de se tornarem diabéticos. Estes resultados confirmam que é necessário tomar medidas que melhorem as práticas alimentares desses indivíduos para prevenir a progressão do seu quando clínico para diabetes tipo 2.

CO35. ADESÃO À DIETA MEDITERRÂNICA OS HÁBITOS DE SONO E DE ATIVIDADE FÍSICA EM PRÉ-DIABÉTICOS: ESTUDO EXPLORATÓRIO TRANSVERSAL DO ESTUDO PREVENT

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INTRODUÇÃO: Uma alta adesão ao padrão alimentar mediterrâneo, hábitos adequados de descanso e de prática de exercício moderado/vigoroso são consideradas benéficas para a saúde e reduzem o risco de doenças crónicas, tais como a diabetes tipo 2. No entanto, não está bem compreendido como estas práticas saudáveis estão correlacionadas.

OBJETIVOS: Avaliar a associação entre a adesão a dieta mediterrânica, os hábitos de sono e atividade física em uma amostra de pré-diabéticos.

METODOLOGIA: Trata-se de uma avaliação transversal dos dados da avaliação inicial do RCT PREVENT (NCT05583045). As informações sociodemográficas, clínicas, antropométricas, recordatório alimentar, de horas de sono e de atividade

física do dia anterior, com questões adicionais de frequência de consumo de alguns alimentos e exercícios moderados/vigorosos (IPAQ), foram coletadas através de entrevista presencial com avaliação física. A adesão ao Padrão Alimentar Mediterrâneo foi analisada recorrendo-se ao PREDIMED, numa escala de 0-14 pontos, o tempo total de sono foi avaliado em minutos/dia e o tempo de atividade física moderada/vigorosa foi avaliado em minutos/semana. Para avaliar a correlação entre a adesão ao Padrão Alimentar Mediterrâneo e o tempo de sono e de atividade física, utilizou-se o teste de correlação de *Spearman*.
RESULTADOS: Um total de 30 pré-diabéticos foram avaliados, a maioria mulheres (70%), com uma mediana de idades de 55 anos (P25:47–P75:59), tempo de sono de 458 minutos/dia (P25:420–P75:510) e de exercício físico de 900 minutos/semana (P25:475–P75:1320). Foi observada uma correlação negativa moderada (Rho=-0,551;p=0,002) entre a adesão ao padrão alimentar mediterrâneo e o tempo de sono, não se verificando para o exercício física (Rho=0,039;p=0,839).
CONCLUSÕES: Os pré-diabéticos com uma maior adesão ao padrão alimentar mediterrâneo referiram um menor tempo total de sono. Embora seja plausível pensar que existe uma relação bidirecional entre os hábitos alimentares saudáveis e melhor qualidade de sono, mais pesquisas são necessárias para compreender esta associação.

C.O. VENCEDORES

1.º Prémio
CO10 | Daily Use of Olive Oil is Associated with Better Cardiac Reverse Remodeling in Pregnant Women

2.º Prémio
CO21 | Association Between Appetitive Traits from Childhood to Adolescence and Cardiometabolic Health: Findings from the Generation XXI Cohort

3.º Prémio
CO9 | Nutritional and Dietary Intervention in the Evolution of Nutritional Status and Frailty in Two Units of the National Network of Integrated Continued Care