intake of foods using a food frequency questionnaire were analyzed in the associations of dairy intake with bone turnover markers and osteo sono assessment index (OSI) using multiple linear regression models with adjustments. Sensitivity analysis were performed in the postmenopausal females and treatment status of osteoporosis.

Results: The dietary intakes of low-fat, high-fat and total dairy foods from milk and yogurt were 0, 22.6, and 47.9 g/d in median. The low-fat dairy consumption was associated with the tartrate-resistant acid phosphatase 5b (TRACP-5b), OSI T-score, and OSI Z-score ($\beta=-0.309$, 0.002, and 0.002, $P=0.026$, 0.136, and 0.116). The high-fat dairy consumption was associated with the parathyroid hormone concentrations (PTH), the under-carboxylated osteocalcin (ucOC), and a procollagen type I N-terminal peptide to bone alkaline phosphatase ratio (P1NP/BAP) after adjusting age and sex ($\beta=-0.041$, 0.003, and 0.002, $P=0.040$, 0.014, and 0.009, respectively). The total dairy consumption was associated with PTH ($\beta=-0.036$, $P=0.012$). In the postmenopausal females, there were statistically significant results, including TRACP-5b, OSI toward low-fat dairy consumption and ucOC and P1NP/BAP toward high-fat dairy consumption.

Conclusion: Dairy consumption is partially associated with bone turnover biomarkers and OSI in the Japanese adults with low dairy diet.

Disclosure of Interest: A. Nakano Grant / Research Support from: This study was funded by the Japanese Science and Technology Agency (grant numbers JPMJCE1302, JPMJCA2201, and JPMJPF2210) and Megmilk Snow Brand Co., Ltd. (approval number 2022-30444), Other: The author is an employee of Megmilk Snow Brand Co., Ltd., H. Ueno Other: The author is an employee of Megmilk Snow Brand Co., Ltd., D. Kawata Other: The author is an employee of Megmilk Snow Brand Co., Ltd., Y. Tatara: None declared, Y. Tamada: None declared, T. Mikami: None declared, K. Murashita: None declared, S. Nakaji: None declared, K. Itoh: None declared

P789

COMPLIMENTARY ROLE OF BMI AND EOSS IN ALL-CAUSE AND SPECIFIC-CAUSE PREDICTION

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Rationale: Obesity is associated with increased morbidity and mortality. The prognostic role of BMI is limited. The complementary role of BMI and the Edmonton Obesity Staging System (EOSS), a system integrating clinical parameters, in predicting mortality was assessed.

Methods: A merged dataset of adults with BMI$\geq$25 kg/m^2 from 1999-2018 cycles of the NHANES was analyzed. The association with mortality was assessed using multivariable Cox regression models adjusted for gender, age, ethnicity, income, education, smoking, considering the presence of competing risks.

Results: 37,638 patients (18,424 males, mean age=47.4 years) were included in the analysis. After a median follow-up of 9.3 years, 5348 deaths occurred. At multivariable analysis, both BMI classes and EOSS stages carried an independent and complementary role in overall mortality prediction, in particular class II/III obesity (HR=1.26,95%CI 1.12-1.42, P<0.001 and HR=1.73,1.52-1.97, P<0.001 compared to overweight, respectively) and stage 2/3 EOSS (HR=1.32, 1.15-1.51, P<0.001 and HR=2.50, 2.13-2.93, P<0.001 compared to stage 0/1, respectively). Cardiovascular death also displayed an independent association both with BMI (SHR=1.49, 1.20-1.85, P<0.001 and SHR=2.16, 1.67-2.80, P<0.001 for class II and III, respectively) and EOSS stages (SHR=1.55, 1.12-2.13, P=0.007 and SHR=3.47, 2.48-4.85, P<0.001 for stage 2 and 3, respectively). EOSS stage 3 was the only predictor of death due to cancer (SHR=1.41, 1.04-1.89, P=0.025) or renal causes (SHR=6.13, 1.57-23.91, P=0.009).

Conclusion: Our results support the use of EOSS in clinical health settings. BMI classes still carried an independent and complementary prognostic role, especially for overall and cardiovascular mortality. In conclusion, the integrated use of these two classifications seems advisable to best define the obesity-related risk of mortality.

Disclosure of Interest: None declared

P790

LONGITUDINAL ASSOCIATIONS BETWEEN DIETARY DIVERSITY AND SERUM LIPID MARKERS IN JAPANESE WORKERS

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Rationale: The aim of this study was to determine the longitudinal associations between dietary diversity score and serum lipid markers in a five-year follow-up period in Japanese workers.

Methods: This study included 745 participants aged 20 to 60 years in 2012-2013 without dyslipidemia at baseline who participated at least once from 2013 to 2017. Dietary intake was assessed using a food frequency questionnaire, and dietary diversity score was determined using the Quantitative Index for Dietary Diversity. Principal component analysis was used to determine three dietary patterns: healthy, western, and confectionary. Lipid markers including total cholesterol, triglycerides, LDL-cholesterol, HDL-cholesterol, and non-HDL-cholesterol were measured.

Generalized estimating equations were used for calculating the cumulative mean of lipid profiles in the follow-up period according to the dietary diversity score at baseline with control of confounding factors.

Results: Higher dietary diversity score was inversely associated with serum concentration of LDL cholesterol (p for trend = 0.028), triglycerides (p for trend =0.029), and non-HDL cholesterol (p for trend = 0.026) in women. The associations except for the association with serum triglycerides were robust after additional adjustment for three dietary patterns (healthy, western, and confectionary). The association with serum triglycerides disappeared after additional adjustment for a healthy pattern. There was no significant association between dietary diversityand dyslipidemia in men in the follow-up period.

Conclusion: This study suggests that dietary diversity is beneficial for lipid profiles in Japanese female workers.

Disclosure of Interest: None declared

P791

LIFESTYLE OR LOW GRADE INFLAMMATION RELATED DETERMINANTS PREDICT ONE-YEAR ALL CAUSE MORTALITY IN HOSPITALIZED COVID-19 PATIENTS WITH OVERWEIGHT OR OBESITY

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Rationale: Obesity is not only associated with a higher risk of Covid-19 infection and chronic diseases but also with an unfavorable disease prognosis. Obese patients with suspected sarcopenia or malnutrition who are also metabolic 'unhealthy' may have a worse clinical course than non-obese patients.

Methods: Data of the Dutch CovidPredict observational cohort was used, in which enrolled patients were hospitalized for COVID infection. Independent variables related to sarcopenia and malnutrition stratified for

overweight and obesity were analyzed as potential predictors for one-year mortality with Random Forest Analyses (RFA). Importance plots were generated to find the most important predictors for one-year all-cause mortality.

Results: A total of 8357 hospitalized patients (median age 67 yrs (IQR 57-76); 61% male; 70% overweight). The RFA showed that the ten most important predictors not directly related to the COVID-19 infection in hospitalized patients differed between patients with normal weight or with overweight or obesity. Overall the most important predictors were smoking, alcohol abuse, sex, diarrhea, joint pain, chronic cardiac disease, physical restriction, hypertension, age, ethnicity. For overweight/obese patients the most important predictors were smoking, alcohol abuses, chronic cardiac disease, joint pain, diarrhea, abdominal pain, sex, hypertension, ethnicity and chronic kidney disease (see Figure).

Image:

Importance of predictors for mortality in overweight/obese patients
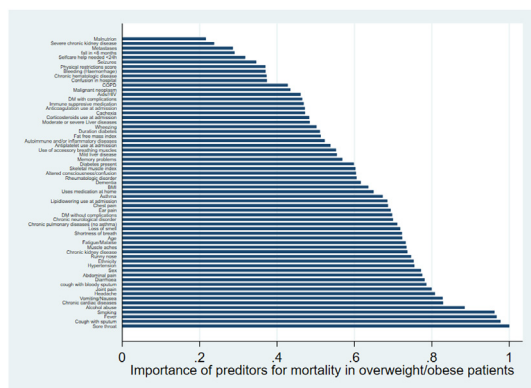
Conclusion: For patients with overweight or obesity the predictors for one-year all-cause mortality differed when compared with patients with normal weight when they are hospitalized for COVID-19 infection. Especially, life style or low-grade inflammation related determinants seem the most important for the prediction of one-year mortality.

Disclosure of Interest: None declared

P792

THE INVERSE ASSOCIATION BETWEEN DAIRY CONSUMPTION AND SYSTOLIC BLOOD PRESSURE IN JAPANESE ADULTS WITH HIGH SALT AND LOW DAIRY DIETS; CROSS-SECTIONAL DATA ANALYSIS FROM THE IWAKI HEALTH PROMOTION PROJECT

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Rationale: Prevalence of hypertension in Japan remains high, due to the high salt intake. Dairy products may reduce blood pressure. However, dairy consumption is low in Japan, and the relationship between dairy intake and blood pressure in populations with high salt and low dairy diets remains unclear. We aimed to explore the effect of dairy consumption on blood pressure in populations with high salt and low dairy intakes, such as the Japanese population, and understand the potential mechanisms by which dairy products affect blood pressure.

Methods: A cross-sectional study was conducted as part of the Iwaki Health Promotion Project in Aomori, Japan. A total of 1071 participants were included from the annual medical checkups in June, 2015. The associations of dairy intake with blood pressure and hypertension risk were analyzed by adjusted multivariate linear and logistic regression analyses. A total of 110 comprehensive blood biomarker levels were also analyzed.

Results: Whole- and high-fat dairy product consumption was inversely associated with systolic blood pressure (SBP) for all participants ($\beta=-0.0220$, p=0.044). In non-users of antihypertensive medicines, whole- and high-fat dairy product consumption was inversely associated with SBP and systolic hypertension risk ($\beta=-0.0306$, p=0.011; and $\beta=-0.0073$, p=0.016; respectively). Three biomarkers (serum phosphorus, intact-parathyroid hormone and interleukin-6) related to phosphorus metabolism were associated with both dairy consumption and SBP.

Conclusion: Dairy consumption had a partial inverse association with SBP and hypertension risk in a Japanese population with high salt and low dairy consumption. Analysis of blood biomarkers suggested that phosphorus metabolism is involved in the associations between dairy consumption and blood pressure.

P793

UTILIZING MEDICINAL FOODS OF SRI LANKAN TRADITIONAL MEDICINE IN ALLOPATHIC PRACTICE

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Rationale: The Sri Lankan traditional medical system comprises many medicinal foods used to manage diabetes mellitus, dyslipidemia, and hypertension. Utilizing evidence-based knowledge of these medicinal foods in allopathic care needs acceptance of these medicinal foods by the patients under allopathic care. Acceptance depends on the current knowledge, attitudes, and practices (KAP) of the patients on medicinal foods

Methods: A descriptive cross-sectional KAP study was conducted between October and December 2022, with a sample of patients attending the medical clinics of allopathic hospitals in the country. A multistage cluster sampling technique was used and the sample size was 754. A validated, pretested, interviewer-administered, structured questionnaire was the tool. Data were analyzed using SPSS-21. Ethical clearance was obtained from the University of Colombo

Results: The patients belonged to 3 nations and 4 religions. Most had unsatisfactory knowledge (UK) of these medicinal foods and poor consumption practices of them for their diseases. However, the majority had positive attitudes (PA) towards using them for their diseases. Public media was the most prominent mode of acquiring medicinal food knowledge for patients. Ethnicity, religion, occupational category, education level, education experience in rural schools, living experience in rural areas, and previous exposure to traditional medicine of the patients significantly differed in the KAP levels of medicinal foods. Patients who had satisfactory knowledge were more likely (OR 224;95%CI) to consume medicinal foods than those with UK.

Conclusion: Though the majority of patients in Western medical care have UK and poor consumption practice of medicinal foods they have PA towards utilizing them for their diseases. Improving the medicinal food knowledge of patients using public media will increase their consumption practices.

Disclosure of Interest: None declared

P794

EVALUATION OF THE RELATIONSHIP BETWEEN SUSTAINABLE AND HEALTHY EATING BEHAVIORS, ADHERENCE TO THE MEDITERRANEAN DIET, AND NUTRITIONAL STATUS IN TURKISH ADULTS

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