

QOL and the mean physical, psychological, social and environmental domain scores were  $81.7 \pm 12.1$ ,  $81.8 \pm 10.4$ ,  $82.6 \pm 13.1$ , and  $77.9 \pm 9.8$ , respectively. There were no statistically significant differences in WHOQOL scores of the three domains between the groups of participants classified according to urine Na and K excretion, except for social domain that was better classified for participants with excessive Na intake ( $76.1 \pm 15.4$  vs.  $84.8 \pm 11.7$ ,  $p=0.049$ ).

**CONCLUSIONS:** Our preliminary results shows that excessive Na intake is related to a higher score of QOL social domain. This result has to be taken into account when designing interventions to reduce salt intake. Further studies are needed to clarify the association of Na and K intake on QOL.

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## CO9. PREDICTION EQUATIONS FOR ESTIMATING BODY WEIGHT IN OLDER ADULTS

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**INTRODUCTION:** Body weight is an important measure to evaluate nutritional status. However, weighing older adults may be challenging because they are often unable to assume the recommended standard position.

**OBJECTIVES:** The purpose of this study is to develop and cross-validate updated and reproducible equations to estimate body weight in older adults, namely amongst the oldest old.

**METHODOLOGY:** 1,456 individuals with 65 years or older, from Nutrition UP 65 study, were included in the present analysis. The participants were randomly assigned to one of two sub-samples: development ( $n=991$ ) and validation samples ( $n=465$ ). Prediction equations using height, mid upper arm circumference (MUAC), waist circumference (WC), calf circumference (CC) and triceps skinfold thickness (TST) were generated for the development sample using multiple regression analysis, and then validated using the validation sample.

**RESULTS:** The five variables prediction equation included height, MUAC, WC, CC and TST as predictors. The following generalized equations were developed: females 65-79 years:  $114.682 + 0.522 \times \text{Height (cm)} + 0.620 \times \text{MUAC (cm)} + 0.517 \times \text{WC (cm)} + 0.893 \times \text{CC} + 0.111 \times \text{TST (mm)}$ , adjusted  $R^2=0.883$ , standard error of the estimate (SEE)=4.4; females  $\geq 80$  years:  $110.806 + 0.494 \times \text{Height (cm)} + 0.637 \times \text{MUAC (cm)} + 0.500 \times \text{WC (cm)} + 0.986 \times \text{CC} + 0.021 \times \text{TST (mm)}$ , adjusted  $R^2=0.890$ , SEE=3.9; males 65-79 years:  $114.875 + 0.558 \times \text{Height (cm)} + 0.073 \times \text{MUAC (cm)} + 0.671 \times \text{WC (cm)} + 0.717 \times \text{CC} + 0.182 \times \text{TST (mm)}$ , adjusted  $R^2=0.820$ , SEE=5.0; males  $\geq 80$  years:  $-128.789 + 0.546 \times \text{Height (cm)} + 0.202 \times \text{MUAC (cm)} + 0.612 \times \text{WC (cm)} + 1.236 \times \text{CC} + 0.093 \times \text{TST (mm)}$ , adjusted  $R^2=0.890$ , SEE=3.5.

**CONCLUSIONS:** Body weight can be estimated with good accuracy in older adults using these sex- and age-specific regression models based on anthropometric variables.

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## CO10. MAY OREGANO OR BEER ADDITION BEFORE COOKING CHICKEN MEAT PREVENT PUFAS FROM OXIDATION?

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**INTRODUCTION:** Polyunsaturated fatty acids (PUFAs) may be oxidized during cooking of meat causing the formation of reactive aldehydes such as malondialdehyde (MDA), 4-hydroxy-2-nonenal (HNE), and hexanal (HEX), some of them involved in several pathologies. Moreover, the formation of these compounds seems to increase during *in vitro* digestion. Natural ingredients may prevent oxidation of lipids if added before cooking.

**OBJECTIVES:** The impact of six cooking practices – oven/microwave combined with/without seasoning with oregano/beer – on total fatty acids content and on the formation of three oxidation markers - MDA, HNE, and HEX – was evaluated after cooking and after *in vitro* digestion of chicken burgers.

**METHODOLOGY:** MDA was measured spectrophotometrically at 532 nm, while HNE and HEX were quantified by HPLC-FLD. The *in vitro* digestion of samples was performed according to the INFOGEST 2.0 protocol.

**RESULTS:** Cooking significantly increased all oxidation markers. Oregano prevented their formation, while beer had no influence. After *in vitro* digestion, MDA increased, regardless the cooking practice, while HNE and HEX values only raised in the samples that contained oregano.

**CONCLUSIONS:** Cooking with oregano exhibited the lowest losses of PUFAs and the lowest contents of all oxidation markers, thus oregano is an excellent mitigation strategy to preserve PUFAs during cooking and digestion and prevent the formation of hazardous compounds.

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## CO11. OVERWEIGHT AT 25 YEARS OLD AND RISK OF NONCOMMUNICABLE DISEASES IN MIDDLE ADULTHOOD: AN ANALYSIS OF NHANES 2015-2016

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