ASSESSMENT OF BODY COMPOSITION OF FILIPINO ADULTS AND ELDERLY (19-69 YEARS OLD)

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Background:
Overweight and obesity are rapidly growing in all regions, affecting both children, adults and elderly. The measurement of body composition provides an objective means of nutritional assessment that can accurately assess the health status of an individual.

Objectives:
The study aimed to measure the body composition of adults and elderly Filipinos, 19-69 years old through anthropometry; bioelectric-impedance analysis (BIA), stable isotope technique, glucose and lipid profile and physical activity using International Physical Activity Questionnaire (IPAQ).

Materials and Methods:
Three hundred eighty (380) healthy study participants aged 19-69 years old, male (310) and female (70) were measured for height and weight, per cent body glucose and lipid profile, physical activity level and body composition using deuterium oxide.

Results and Findings:
Based on WHO classification, the 19-29 years old group (23.55 ± 0.55) had normal BMI while all other age groups were considered obese. The 19-29 years old group had normal blood glucose (4.55 ± 0.72 mmol/L) while other age groups (30-69 years old) were borderline pre-diabetic (>5.7 mmol/L). The fasting blood sugar of male for all age groups was higher compared with the female group. The total cholesterol level of adults (19-59 y.o.) was borderline high, while the elderly (60-69 y.o) was classified high. All age groups had normal (<115mg/dL) triglyceride level, while HDL-c level was low (<60mg/dL). The LDL-c for adult was borderline high while the elderly was found to be very high (>100mg/dL). The per cent body fat mass for all age groups showed that 98% male and 18% female were obese.

Conclusion and Recommendation:
Body composition can be determined using stable isotope techniques. The male population had higher number of obese compared with female. The results showed that 30 years old and above had inactive to sedentary lifestyle, high BMI, blood glucose, total cholesterol and LDL-c. We recommend a bigger population size to better characterize the Filipino adult and elderly age group in terms of fat mass.