METHODOLOGY
The study followed a cross-sectional research design. A total of 1,160 adult respondents of the 2013 NNS and living in Metro Manila, Philippines were included in the study. Anthropometric, biochemical, clinical and dietary data were generated through validated questionnaires, physical examination and laboratory analyses. Total serum 25-hydroxyvitamin D (25OHD3) was determined using electro-chemiluminescence binding assay method. Genomic DNA was used for massively parallel sequencing of 502 lifestyle related genes.

RESULTS
Of the study participants, 56% were classified as having low serum 25OHD3 concentration (<75 nmol/mL). The data discovered at least six genetic variations show statistically significant differences in serum vitamin D concentration across genotypes. These genes were previously known to have contributed to the risk of developing Type 2 Diabetes Mellitus, Obesity, Iodine Deficiency and a neurodegenerative disorder.

CONCLUSION AND RECOMMENDATION
Large-scale analysis of genes associated with lifestyle disease and other determinants of overall health have shown great utility in the discovery of genes and polymorphisms that play a role in vitamin D nutrition. Post – hoc test may be performed to confirm where the differences occurred between groups. It is envisioned that understanding how genetic variations interact with environmental factors, especially nutrition may hold the key to better prevention and management of nutrition-related diseases and may be basis for future innovative genome-based functional food product development enriched with vitamin D.

KEY WORDS
nutrigenomics, vitamin D, next generation sequencing

OP-03

FACTORS ASSOCIATED WITH THE SEVERITY OF FINDINGS ON HEPATIC TRANSIENT ELASTOGRAPHY AMONG PERSONS WITH TYPE 2 DIABETES AND FATTY LIVER

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OBJECTIVE
This study aims to determine the relationship between the different factors associated with the severity of Fibroscan with CAP findings among patients with type 2 diabetes and fatty liver.

METHODOLOGY
This is a cross-sectional study. Seven hundred four Fibroscan with Controlled Attenuation Parameter (CAP) results were electronically retrieved from a diagnostic center. 285 charts of diabetic patients with fatty liver on ultrasound were reviewed. One hundred sixty-four patients with fatty liver on ultrasound and Fibroscan with CAP were included in the study. Several factors were analysed in relation to the severity of Fibroscan with CAP findings in the study group.

RESULTS
55.5% (91/164) had significant fibrosis and cirrhosis. Hepatic steatosis prevalence was 96% (158/164). Diabetes >5 years (OR 1.75), HbA1c ≥7% (OR 2.25) and high SGPT levels (OR 2.39) were associated with liver fibrosis and cirrhosis. BMI >25 kg/m^2 (OR 1.45), triglyceride levels >150 mg/dl (OR 1.31) and HbA1c ≥7% (OR 1.74) were associated with hepatic steatosis.

CONCLUSION
Factors associated with the severity of hepatic fibrosis, cirrhosis and steatosis included above normal BMI, disease duration of >/= 5 years, poor glycemic control and elevated levels of ALT, and serum triglycerides.

KEY WORDS
type 2 Diabetes, NAFLD, transient elastography