Course	MPH	Name	Yuna Sakane	
Thesis Title	Associations between dietary behavior and nutritional status in adolescents, in a semi-urban area of the Philippines			

### Abstract of Master's Dissertation

## Background:

Obesity and unhealthy environments have been spreading in low and middle-income countries (LMICs), as well as in the Philippines. There is evidence that food preference and habits in adults are influenced by childhood dietary behaviors and environments. However little had been known about the association between dietary behaviors and nutritional status in adolescents in the Philippines.

## Objective:

The general objective of the present study is to investigate the association between dietary behaviors and nutritional status in high school students in a semi-urban area of the Philippines. Specifically, the present study aimed (1) to determine the nutritional status and characteristic of dietary behaviors among senior high school students, (2) to describe availability, distribution, and density of food outlets and characterize the food environment around a senior high school.

# Method:

An observational, quantitative cross-sectional study was conducted in the City of Bago, the Province of Negros Occidental, the Philippines. A total of 244 students were recruited from a public senior high school. Data regarding socio-demographic characteristics, dietary behaviors, and physical activities were collected by a self-administered paper-based, structured questionnaire. The participants' height, weight, and waist circumference were measured to determine nutritional status. The location of all food outlets within a radius 1,000 m centered at the school were recorded by using a Global Positioning System (GPS) receiver and were managed by Geographical Information System (GIS). Multivariate logistic regression analysis was utilized to determine associations between dietary behaviors and nutritional status.

# Result:

The prevalence of overweight, obesity, and high waist circumference were 6.2%, 1.7%, and 16.2% respectively. Approximately 87.5% of purchasing foods and beverages occurred in < 500 m from the school, where many café and restaurants were concentrated. High frequency

\* The abstract, containing the objective, method, result and conclusion should not exceed c.1000 words (300-500words/page, double sided on A4 paper)

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of using food outlets increased odds of overweight (OR:1.76, 95% CI: 1.15-2.7), and high waist circumference (OR: 1.57, 95% CI: 1.13-2.17). It was remarkable that the odds increased when the participants used food outlets located in  $\leq 1,000$  m two times or more per day in both overweight and waist circumference. The male students were more likely to have high waist circumference, while the frequency of having meals and snacks in the previous day were greater in females. No significant associations were observed between other variables and nutritional status.

### Conclusion:

Frequent use of food outlets increased the risk of overweight and high waist circumference. The students in the school were using food outlets more than once per day, and most of eating out occurred in < 500 m from the school. Not only inside the school but promoting healthy food environments outside of the school might prevent students from purchasing unhealthy foods in the area. Further study on dietary behavior, food environments, and nutritional status with different setting are needed to clarify the effect of dietary behaviors.

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