The goals of this paper was to determine patterns in dietary habits of older adults in Australia using PCA and CA (cluster analysis) and observe the associations these patterns have with socio-demographic and health behaviors. In order to do so, data was collected using individuals that were part of another study. The individuals were chosen based on age (55-65 years old) of which 38% had aptly responded to the questionnaire regarding their food frequency. This survey took into account the frequency of intake of varying food groups over the previous six months, in addition to socio-demographic factors, height, weight, and health behaviors. I chose this paper because diet is something that many people try to control when they want to improve their health, but they fail to realize that there could be reasons beyond our control that control our health.

PCA was used to determine clusters of individuals based on their food intake frequencies. This analysis is important because it allows the conversion of the data into a vector that can be graphed and further analyzed. It showed that there were four dietary patterns among men and six among women, accounting for between 5 and 6% of the variation in food intake in men and between 6 and 8% in women. These variations were then used to cluster the individuals that were a part of the study based of their dietary frequencies. These clusters were then analyzed to determine factors that the individuals in each cluster had in common, such as BMI, socio-demographic, and other health behaviors that were determined based on the survey.

Article:

Thorpe, Maree G., et al. "A comparison of the dietary patterns derived by principal

component analysis and cluster analysis in older Australians." *International Journal of Behavioral Nutrition and Physical Activity* 13.1 (2016): 30.