

# **Attitudes Towards Healthy Eating Across Demographics**

## **Abstract**

This study aims to analyze the relationship between age, education, and perceptions of healthy eating in terms of both general nutritional knowledge and interpretation of nutrition labels. The results of the study generally suggest that those with higher levels of education view nutrition as being generally more complex, but they tend to recognize the importance of diet in improving overall health. Additionally, older adults tended to use nutrition labels far more frequently than younger adults.

## **Introduction**

As nutritional science has evolved, the complexity of a healthy diet has increased. While consumers now have access to health information from a variety of sources, they must be able to interpret this information and determine its usefulness in their life (Paquette, 2005). This paper examines the differences in the attitudes towards healthy eating by individuals with varying age and levels of education. Are younger and more educated individuals more educated in regard to healthy diets than their older or less educated counterparts?

For consumers to be able to maintain healthy dietary practices, they must have access to and be able to interpret necessary nutritional information. While existing literature evaluates nutritional perceptions based on general age categories such as children, adolescents, and adults, there is a lack of literature that examines differences in perceptions between young adults, middle-aged adults, and the elderly. Additionally, education levels may play a role in a consumer's ability to

consume a healthy diet. As Nayga, Lipinski, and Savur note in their 1998 study, “those with more education may be more capable of interpreting the information included on nutrition labels” (Nayga, Lipinski, and Savur, 1998). In addition to the challenge of complex information, studies have found that consumers often do not spend time evaluating nutrition labels to make informed choices (Jacoby, Chestnut, and Silberman, 1977).

This study aims to analyze the relationship between age, education, and perceptions of healthy eating in terms of both general nutritional knowledge and interpretation of nutrition labels. Metrics related to general nutritional knowledge will allow us to evaluate the baseline levels of perceptions towards healthy eating in specific demographic groups while those related to nutrition labels may allow us to determine the effectiveness of nutrition labels. Both can help us to identify shortfalls in nutrition education.

## **Methods**

505 unique, individual clients of a Lafayette, Indiana food pantry were surveyed over a period of 6 weeks. Demographics of this group are as follows: education levels - 102 less than high school, 193 high school graduates, 179 some college, 22 with a bachelor’s degree and 7 with a graduate degree. Additionally, 160 respondents were between 18 and 34 years of age, 227 were between the ages of 35 and 54, and the remaining 113 respondents were over the age of 55.

Respondents were asked a series of questions regarding eating habits and their effect on health, and nutrition labels. The questions are as follows:

1. Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.

2. Eating a variety of foods each day probably gives you all the vitamins and minerals you need.
3. What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.
4. I use nutrition labels to judge nutritional quality.
5. I use food nutrition labels to control portions.
6. I use food nutrition labels to plan meals.
7. I don't use food nutrition labels.

Respondents were asked to indicate their agreement with the above statements across 4 categories: strongly agree, somewhat agree, somewhat disagree, and strongly disagree.

## **Results**

General results for the study are as follows:

**Table 1: Response Distributions Among All Consumers Surveyed (percent)**

Question	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.	45.3%	23.2%	12.6%	19.0%
Eating a variety of foods each day probably gives you all the vitamins and minerals you need.	36.2%	30.8%	18.2%	14.9%
What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.	47.6%	20.9%	13.3%	18.2%
I use food nutrition labels to judge nutritional quality.	30.8%	32.9%	19.5%	16.8%
I use food nutrition labels to control portions.	26.5%	32.1%	23.4%	18.0%
I use food nutrition labels to plan meals.	25.3%	28.4%	27.3%	19.0%
I don't use food nutrition labels.	30.0%	23.0%	20.3%	26.7%

For our analysis, responses were placed in 3 groups, those whose education level is less than high school, those who have graduated high school, and those with some level of college education (including some college, bachelor's degree, and graduate degrees). 102 respondents indicated that their highest level of education was less than high school, 193 respondents indicated that they had graduated high school but did not have further education, and 208 respondents indicated some degree of college education (179 some college, 22 bachelor's degree, 7 graduate degree).

In addition to the distributions above, Tables 2 – 4 depict the distributions by education. Table 2 displays the responses of those who indicated that their education level was less than high school. Table 3 shows the responses of those who indicated that they graduated high school, and Table 4 shows the responses of those who indicated that they had either attended college or graduated with a bachelor's or graduate degree.

**Table 2: Survey Response Distributions Among Consumers with Less than High School Education (percent)**

Question	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Response
Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.	52.9%	13.7%	10.8%	21.6%	1.0%
Eating a variety of foods each day probably gives you all the vitamins and minerals you need.	27.5%	33.3%	22.5%	15.7%	1.0%
What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.	41.2%	23.5%	16.7%	14.7%	3.9%
I use food nutrition labels to judge nutritional quality.	26.5%	28.4%	22.5%	19.6%	2.9%
I use food nutrition labels to control portions.	20.6%	35.3%	16.7%	23.5%	3.9%
I use food nutrition labels to plan meals.	23.5%	27.5%	22.5%	24.5%	2.0%
I don't use food nutrition labels.	21.6%	29.4%	18.6%	26.5%	3.9%

**Table 3: Survey Response Distributions Among Consumers with High School Education (percent)**

Question	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Response
Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.	43.7%	23.7%	12.6%	17.4%	2.6%
Eating a variety of foods each day probably gives you all the vitamins and minerals you need.	36.8%	30.0%	17.9%	13.2%	2.1%
What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.	43.7%	24.7%	13.2%	15.8%	2.6%
I use food nutrition labels to judge nutritional quality.	26.3%	36.8%	22.1%	13.2%	1.6%
I use food nutrition labels to control portions.	21.1%	33.2%	25.8%	16.3%	3.7%
I use food nutrition labels to plan meals.	21.6%	30.5%	31.1%	14.7%	2.1%
I don't use food nutrition labels.	22.1%	23.2%	26.3%	24.7%	3.7%

**Table 4: Survey Response Distributions Among Consumers with College Education (percent)**

Question	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Response
Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.	38.0%	27.4%	14.4%	18.3%	1.9%
Eating a variety of foods each day probably gives you all the vitamins and minerals you need.	34.1%	30.8%	16.3%	16.8%	1.9%
What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.	49.5%	16.3%	11.5%	21.6%	1.0%
I use food nutrition labels to judge nutritional quality.	31.7%	31.3%	16.8%	18.8%	1.4%
I use food nutrition labels to control portions.	26.4%	29.3%	25.0%	17.3%	1.9%
I use food nutrition labels to plan meals.	25.0%	27.4%	26.4%	19.7%	1.4%
I don't use food nutrition labels.	29.3%	19.7%	16.8%	29.8%	4.3%

Two noteworthy distributions in the education category are responses to question 1: choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad, and question 3: what you eat can make a big difference in your chance of getting a disease, like heart disease or cancer. 52.9% of respondents with less than high school education indicated strong agreement with question 1 compared to only 38.0% of respondents with college education. Furthermore, 41.2% of respondents with less than high school education indicated strong agreement with question 3 compared to 49.5% of respondents with a college education. Note that these measures are not statistically significant at a 0.05 level and further sampling will need to be conducted.

One point of disagreement with existing literature is in regard to nutrition labels. A 1998 study found a positive correlation between education and likelihood of using nutrition labels. They stated, “individuals with some college education, a bachelor’s degree, and a graduate or

professional degree are more likely to use nutrition labels than individuals who do not have any college education” (Nayga, Lipinski, and Savur, 1998). In fact, our analysis showed the opposite result, as displayed by question 7. Among respondents who indicated that they had not graduated high school, 21.6% indicated strong agreement with the statement that they do not use nutrition labels. Surprisingly, 29.3% of respondents who had college education indicated strong agreement with the same statement.

Tables 5 – 7 display responses to the survey across various age groups. Table 5 displays the responses of those ages 18-34. Table 6 shows the responses of those ages 35 - 54, and Table 7 shows the responses of those ages 55 and above.

**Table 5: Survey Response Distributions Among Consumers Ages 18-34 (percent)**

Question	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Response
Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.	38.8%	25.0%	15.6%	20.6%	0.0%
Eating a variety of foods each day probably gives you all the vitamins and minerals you need.	31.3%	29.4%	18.8%	18.8%	1.9%
What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.	46.3%	18.8%	12.5%	21.9%	0.6%
I use food nutrition labels to judge nutritional quality.	28.8%	30.6%	20.6%	20.0%	0.0%
I use food nutrition labels to control portions.	23.8%	30.6%	21.9%	21.9%	1.9%
I use food nutrition labels to plan meals.	23.8%	26.9%	29.4%	20.0%	0.0%
I don't use food nutrition labels.	18.8%	22.5%	23.8%	33.8%	1.3%

**Table 6: Survey Response Distributions Among Consumers Ages 35-54 (percent)**

Question	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Response
Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.	42.7%	24.1%	12.9%	18.1%	2.2%
Eating a variety of foods each day probably gives you all the vitamins and minerals you need.	33.2%	31.5%	19.8%	13.8%	1.7%
What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.	41.8%	25.0%	12.9%	17.7%	2.6%
I use food nutrition labels to judge nutritional quality.	26.7%	34.5%	18.5%	17.2%	3.0%
I use food nutrition labels to control portions.	22.8%	35.3%	22.0%	16.8%	3.0%
I use food nutrition labels to plan meals.	23.7%	29.3%	25.9%	19.4%	1.7%
I don't use food nutrition labels.	27.6%	26.7%	15.9%	26.7%	3.0%

**Table 7: Survey Response Distributions Among Consumers Ages 55 and Older (percent)**

Question	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	No Response
Choosing a healthy diet is just a matter of knowing what foods are good and what foods are bad.	48.7%	19.3%	8.4%	18.5%	5.0%
Eating a variety of foods each day probably gives you all the vitamins and minerals you need.	37.8%	32.8%	15.1%	12.6%	1.7%
What you eat can make a big difference in your chance of getting a disease, like heart disease or cancer.	49.6%	16.0%	15.1%	15.1%	4.2%
I use food nutrition labels to judge nutritional quality.	31.1%	33.6%	21.0%	11.8%	2.5%
I use food nutrition labels to control portions.	22.7%	28.6%	28.6%	15.1%	5.0%
I use food nutrition labels to plan meals.	21.0%	29.4%	28.6%	16.0%	5.0%
I don't use food nutrition labels.	30.3%	16.0%	25.2%	17.6%	10.9%



There were substantial differences in several questions across age groups as well, specifically in questions 1 and question 7. In question 1, 38.8% of respondents from ages 18-34 indicated strong agreement with question 1 compared to 48.7% of respondents from ages 55 and older. There were also differences in responses to question 7, I don't use food nutrition labels. 18.8% of respondents aged 18-34 strongly agreed with this statement whereas 30.3% of respondents ages 55 and older strongly agreed. Both measures are statistically significant at a 0.05 level.

### **Concluding Remarks**

The results of this study generally indicate that age and education levels have varying relationships with consumer perception of healthy foods and the use of nutrition labels. Those with higher levels of education appear to view nutrition as being generally more complex, but they tend to recognize the importance of diet in improving overall health. Additionally, older adults tended to use nutrition labels far more frequently than younger adults.

While this study provides some information on the general attitudes of various demographic groups towards healthy eating and nutrition labels, several questions remain unanswered. First, more research is needed to evaluate the role of branding in a consumer's decision-making process. Are consumers more likely to purchase a product from a well-known brand than a more generic product that may provide more health benefits?

Additionally, it may be beneficial to evaluate consumers' awareness of changes to dietary guidance. For example, every 5 years, the United States Department of Agriculture and the U.S. Department of Health and Human Services release the Dietary Guidelines for Americans. In the 2020-25 edition, these agencies recommend consumption of added sugars to be far lower than in

previous recommendations. Are consumers aware of these changes? If so, will this guidance alter consumers' eating choices?

Finally, it is important to look at consumers' definitions of healthy eating. While it can be expected that, in a general sense, some habits (eating fruits and vegetables, for example) will be perceived as healthy by a vast majority of consumers, it is important to take a person's individual goals into consideration. For example, some consumers may perceive eating an organic, sustainably produced diet as healthier while others may have a different view of healthy diets. These may be complicated questions, but they are important for policymakers and scientists to understand in order to improve public health.

## REFERENCES

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