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Knowledge of 2005 Dietary Guidelines and Food Consumption Habits of African-Americans in Tennessee

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The first *Dietary Guidelines* was published in 1980. The 2005 *Dietary Guidelines for Americans* (DGA) differs from earlier guidelines in scope and purpose. It provides science-based recommendations that will promote healthy lifestyles and reduce risk associated with major chronic diseases through diet and physical activity. Major chronic diseases linked to poor diet include cardiovascular disease, hypertension, type 2 diabetes, malnutrition, some cancers, and overweight and obesity (United States Department of Health and Human Services and United States Department of Agriculture 2005).

The lack of physical activity, muscle strengthening, and poor diet can also result in overweight and obesity. According to Hedley et al. (2004), between the 1999 and 2002, sixty-five percent of U.S. adults were overweight and about thirty percent of adults were obese. Kant, Graubard, and Schatzkin (2004) indicated that dietary patterns consistent with recommended dietary guidelines were associated with a lower risk of mortality among individuals ages 45 years and older in the United States.

Some of the key recommendations of the 2005 Dietary Guidelines are in the areas of daily consumption of fruits and vegetables, the amount of grain per serving including wholegrain, and consumption of low-fat or fat-free dairy. Other examples provided were:

- Weight management: Choose foods that limited the intake of saturated and trans fats, cholesterol, added sugars, salt, and alcohol.
- People over age 50 and women of childbearing age should consume vitamin B₁₂ (RDA = 2.4ug/day) either as a fortified food or as supplements. Pregnant women should consume about 600ug/day.
- Increase fiber intake, such as whole grains, fruits, and vegetables.

- Increase calcium intake, such as milk and milk products.
- Increase fluid intake: consume adequate water to maintain normal dehydration and avoid heat stress. Those who choose to drink alcoholic beverages should do so in moderation (up to one drink per day for women and up to two drinks per day for men).
- Decrease sodium and potassium intake: consume less than 2,300 mg (approximately 1 teaspoon of salt) of sodium and 4,700mg/day of potassium with food for individuals with hypertension, Blacks, middle-aged and older adults.

The 2005 Dietary Guidelines emphasizes the need to choose foods that are high in nutrients but low to moderate in energy content to keep calories under control. Increase in physical activities is also important.

Objective

This study assesses the knowledge level of African Americans in Tennessee about the 2005 Dietary Guidelines (DGA) and their likelihood of meeting the recommendations.

Methodology

Issues covered by the survey include key elements of the 2005 Dietary Guidelines (DGA), awareness and knowledge of the 2005 DGA, ranking factors affecting the participants' ability to meet the Guidelines, socio-demographic characteristics of the participants, and willingness participants' willingness to change their current food consumption habits.

Data Collection and Analysis

The survey was distributed to faculty, staff and students in the School of Agriculture and Consumer Sciences at Tennessee State University in the fall of 2009. Seventy-five completed responses were

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received and descriptive statistics were computed using Statistical Package for the Social Sciences (SPSS).

Results and Discussion

This study was conducted to determine the level of knowledge of African-Americans in Tennessee and their likelihood of meeting the 2005 Dietary Guideline (DG). The frequency for each factor was determined. Seventy-five of those who received a copy of the survey responded. When asked to rate their knowledge of the 2005 DG on a Likert scale ranging from "A lot" to "None," only 12 percent of

the respondents knew a lot about the 2005 DGA, 41.3 percent had no knowledge of it, and 46.7 percent had little knowledge.

Socio-Demographic Characteristics of the Respondents

Table 1 shows that majority of the respondents were between the ages of 21 and 30 years old and 94.7 percent had some kind of education, with 29.3 percent having a high school diploma and 8.0 percent holding a Ph.D. About 49.3 percent of the respondents were females and 45.3 percent males.

Table 1. Socio-Demographic Characteristics of Respondents.

Characteristic	Percentage
Age	
15-20	2.7
21-30	33.3
31-40	14.7
41-0	16.0
51-60	16.0
61-70	8.0
No answer	9.3
Education	
High school	29.3
Associate degree	21.3
In college	22.7
Some college	17.3
Bachelor's degree	4.0
Master's degree	5.3
Ph.D.	8.0
No answer	5.3
Gender	
Male	45.3
Female	49.3
No answer	2.7

Food Consumption Habits

When the respondents ($n = 75$) were asked to rank the important factors that affected their ability to meet the 2005 DG, results indicated that 36.0 percent felt that the cost of such foods with better nutritional values and which are recommended by the 2005 DG were too expensive or not affordable, and 38.7 percent of the respondents also felt that the influence of their current unhealthy food choices had an effect on their ability to meet the 2005 DG (Table 2).

According to the results in Table 3, when the

respondents were asked to rank factors that would contribute to making decision about food purchases, price was ranked the highest (37.3 percent), followed by taste (29.3 percent), quality (25.3 percent), and healthiness (21.3 percent).

Summary and Conclusions

Given that the respondents would not be able to meet the 2005 DGA under their current dietary habits, there is a need to provide nutrition education, emphasizing the importance of consuming more fruits and vegetables. The findings in this paper

Table 2. Ranking of Factors that Affect Respondents' Ability to Meet the 2005 DGA (%).

Ranking	Factors affecting the ability to meet the 2005 DGA			
	Cost of such foods are too high/affordable	Store(s) in my area do not carry such foods or are not available	Do not have vehicle to go to stores to buy such foods/accessibility	Influence of current unhealthy food choices
Very important	36.0	10.7	5.3	38.7
Important	17.3	17.3	1.3	20.0
Neutral	5.3	32.0	2.7	8.0
Not important	2.7	1.3	30.7	8.0
Not sure/ No answer	38.7	38.7	60.0	25.3

Table 3. Ranking of Factors Affecting Food Purchase Decisions (%).

Ranking	Factors affecting food purchase decisions				
	Price	Quality	Healthiness	Taste	Convenience
Very important	37.3	25.3	21.3	29.3	4.0
Important	20.0	16.0	25.3	21.3	12.0
Neutral	8.0	25.3	20.0	22.7	5.3
Not important	17.3	17.3	14.7	17.3	13.3
Not sure	10.7	6.7	10.7	4.0	54.7
No answer	6.7	9.3	8.0	5.3	10.7

are consistent with those of the ERS based on a national study (USDA-ERS 2009). When asked if they were willing to change their current dietary habits, more than 70 percent of the respondents indicated their willingness to do so. An increase in physical activities and access to affordable exercise facilities should also be considered in order to move toward meeting the 2005 DGA. It must be noted that implementation of the above would require a concerted effort by various stakeholders including educators, health professionals, policy makers, and extension personnel using various forums such as workshops and outreach programs.

This study is limited to African-American faculty, staff, and students in the School of Agriculture and Consumer Sciences at Tennessee State University. Future work should cover more areas and include other ethnic groups not covered by this study. The sample size should also be significantly

increased to facilitate generalization.

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