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Food Label Made Easy

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Brookfield Family Medicine, Brookfield CT

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2A: Problem Identification

- The use of food labels and adherence to dietary recommendations are important, especially for those with chronic diseases due to the well known relation between chronic disease and poor nutritional habits.
- Although food labelling has been introduced since 1994 with the aim of combating obesity and diet-related chronic disease in the USA, the rates of food label use among US adults have decreased over the past decade.[1]
- While there is lack of data specifically on the state of Connecticut, a national study performed in 2012 shows that the general US adult population food label use was found to vary depending on socioeconomic status, nutrition knowledge, and perceptions and belief. [1]
- In general, men, African Americans, people with lower education or income, rural residents, and those who were unaware of relationships between diet and disease were less likely to use food labels. While women, Caucasians, people with higher socioeconomic status were more likely to use the food label. [1]
- Another study found reasons for not reading nutrition labels include: no interest, lack of responsibility for food purchasing, lower health literacy, and no time. [2]

2B: Problem Identification

- During conversation with patients in the Brookfield Family Medicine practice at their annual wellness visits or follow ups for chronic illnesses, there was a pattern observed when patients are discussing their diet which prompted further exploration of this topic:
  - Many patients **do not keep track of their daily intake**, so they cannot track calories, macronutrients, micronutrients, minerals, etc.
  - Many patients do not read their food labels because they have never formed the habit or they do not know **how to read** a food label
  - Many patients do not know **what to avoid or limit** in their diet
- Patients in this practice may need a simple guide to approach a food label and simple dietary recommendations when choosing what and how much to eat.

3A: Public Health Cost

- The direct medical cost of overweight and obesity is approximately 5.0% to 10% of U.S. health care spending. [3]
- In 1998 the medical costs of overweight and obesity were estimated to be $78.5 billion a year,[3] but that number has now increased up to $150billion dollars a year per the CDC.
- In Connecticut rates of obesity and diet-related chronic diseases have risen steadily since the late 1990s. [4]
- Outreach report published in January 2019 shows 61.6% of Connecticut residents surveyed reported being overweight (36.0%) or obese (25.6%). [4]
- Obesity rate in the town of Brookfield was found to be <20.5%. [4]
- A validated microsimulation model at Tufts University in Boston estimates between 2018 and 2037, the new FDA implementation of the “added sugar” label would prevent 354 400 cardiovascular and 599 300 diabetes mellitus cases and save $31 billion in net healthcare costs. [5]

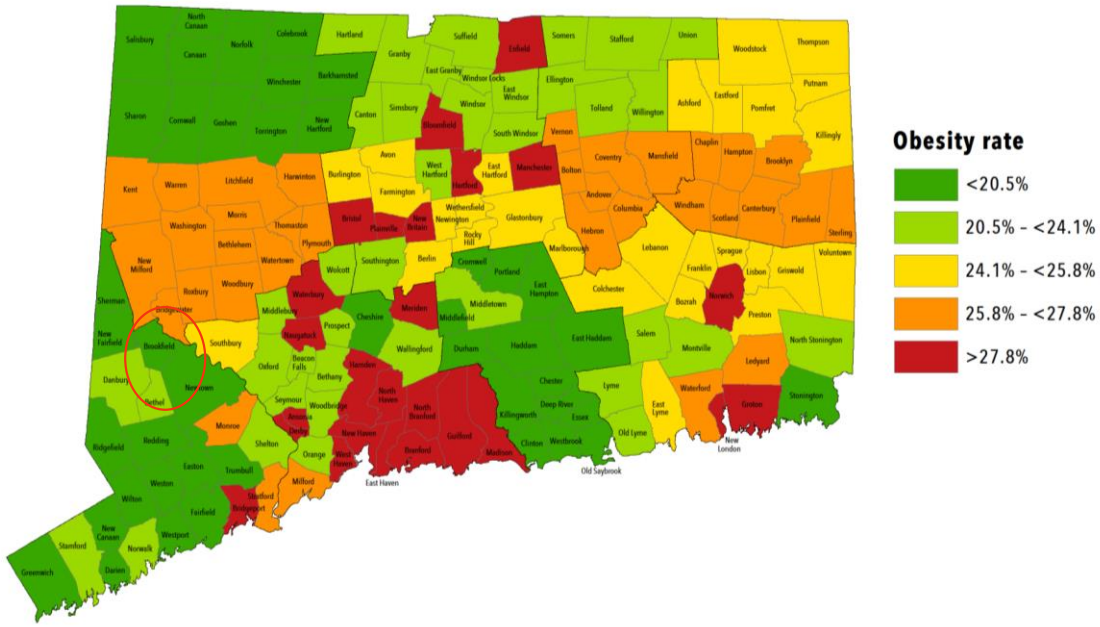

Figure 1. Obesity rates across the states of Connecticut.
From Boehm, Rebecca, et al. Food Insecurity and Obesity Incidence Across Connecticut.

4: Community Perspective on Issue

Interviewed different providers around the Brookfield Family Practice office regarding the issue.

Thinking of your own patient population, do you think they tend to read the food label? If not why do you think that is the reason?

"Most patients don't read the food label. Some patients are not even aware it is a law to have a food label. Many people find it complicated to understand, there is too many numbers like milligrams and percentages. It is a big reason many patients struggle with weight loss, they do not know what they are putting into their bodies or they are mislead by labels"

Laurie Schedgick-Davis ,DO

"It's safe to say the majority of patients with comorbidities make poor decisions with their food choices. I don't think its lack of awareness, I think its our environment. If you take a typical grocery store and you remove all the nonfood aisles, and then remove the aisles that contain what we consider junk food, you are not left with much. If you overwhelm someone with poor options, they will make poor decisions."

Thomas Whelan, MD

5: Intervention and Methodology

Reviewed different examples of food labels and different ways to explain the food label in a quick yet simple manner

Reviewed current dietary recommendations per different organizations such as the FDA, USDA, American Heart Association

Created a trifold leaflet that explains:

1. How to approach a food label, what to look for, how to use the information provided
2. The recommended dietary intake for many nutrients including carbohydrates, fats, proteins, sodium, cholesterol, calcium, iron, etc.

5B: Intervention and Methodology

READING YOUR FOOD LABEL HELPS YOU MAKE BETTER FOOD CHOICES

Start Here

Limit these Nutrients

Get Enough of these Nutrients

Footnote

Quick Guide to % DV

Nutrition Facts
Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving
Calories 250 | Calories from Fat 110

	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 1.5g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Speak to your provider about how we can help you achieve your nutrition goal

For More Information, visit FDA.gov/Food

Brookfield Family Medicine

Contact Us

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FOOD LABEL MADE EASY

Read Before You Eat!

The Serving Size

Serving Size 1 cup (228g)
Servings Per Container 2

The number of calories and all the nutrients on the label are influenced by the serving size.

- We recommend investing in a good scale and measuring cups. Most people tend to overestimate the serving size.

*Example: If the serving size is **1cup** and you eat two sevings (**2cups**), not only will you double the calories, but also all the listed nutrients.*

Calories (and calories from fat)

Amount Per Serving
Calories 250 | Calories from Fat 110

Calories = energy
Different people need to eat different amounts of calories to maintain, lose, or gain weight.
Focus more on where the calories are coming from, rather than number! In general, the USDA recommends a diet that is:

- ***45% to 65% carbs (45g-65g)***
- ***25%-35% fat (25g – 35g)***
- ***10%-35% protein (10g-30g)***

The Nutrients: Generally limit the nutrients in yellow and increase the nutrients in blue

Total Fat 12g	**18%**
Saturated Fat 3g	**15%**
Trans Fat 3g	
Cholesterol 30mg	**10%**
Sodium 470mg	**20%**

American Heart Association recommends:

- **Sodium**: ideally **1,500mg** per day for most adults
- **Cholestrol**: No more than **300mg** a day
- **Saturated fat**: No more than **20mg** for women, **30mg** for men
- **Trans fat**: No more than **2g** trans fat per day

Dietary Fiber 0g	**0%**

Vitamin A	**4%**
Vitamin C	**2%**
Calcium	**20%**
Iron	**4%**

Eating a variety of food, especially colorful fruits and vegetables ensures your body gets the fiber and vitamins it needs.

USDA recommendations:

- **Fiber**: 21 to 31g
- **Calcium**: 1200mg to 1300mg
- **Iron**: 8 to18mg

What are Daily Values (DV):

- Daily Values (DV) are recommended levels of intake of a certain nutrient based on a 2,000 or 2,500 calorie diet
- The %DV column is based on 100% of **daily** value of a nutrient. *It is NOT made to add up to 100%* vertically.

So, if a food has 30mg of cholesterol, that is 30 out of the recommended 300, so 10% of the daily recommended cholesterol intake.

Special note for calcium: The nutrition facts only lists %DV for calcium. Expert advise is 1,200mg a day. So 100%DV is 1,200mg. *Just add a zero to the listed %DV for weight in milligrams!*

The Footnote

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

The statement "%DVS are based on a 2,000 calorie diet" must be on all food labels and is found in the footnote at the bottom of the food label.

Results / Response

- The brochure is designed to be a quick guide to understanding and using a food label, to ultimately be able to judge a healthy versus a non healthy food option.
- Providers at the Brookfield Family Medicine office responded positively to the content of the brochure as they believe it contains important information patients need to be aware of when it comes to their diet.
- The brochure was placed in different rooms around the office for providers to offer to patients.

Evaluation of Effectiveness and Limitations

Effectiveness:

- Due to time constraint, the effectiveness of this intervention was not assessed.
- Future assessment can be done as follow:

1. Propose an official survey for patients presenting to the practice:
   - Do you read food labels prior to purchasing your food?
   - Do you keep track of your daily food intake?
   - Do you know how much you should be eating for certain nutrients?
   - What is your current weight?
2. Collect data to the above questions and distribute the brochure to patients who take the survey.
3. During patients' follow up visit have them take the survey again.
4. Compare data

Limitations:

- Patient's resilience to change and to adapting a new habit
- Food insecurity
- Language barrier
- Difficulty with calculations and keeping track of daily numbers
- Limited time available during office visits to discuss the brochure with patients

Recommendation for Future Interventions

- Distribute the brochure to all adults patients on their annual wellness visit, especially those with an overweight or obese BMI
- Collaborate with other family medicine offices in the area and distribute the brochure in their clinic
- Collaborate with the local YMCA and make the brochure available for people attending the gym
- Update brochure based on feedback from providers and patients regarding included information, ease of understanding, and changing guidelines

9: References

1. Chen, X., Jahns, L., Gittelsohn, J., & Wang, Y. (2012). Who is missing the message? Targeting strategies to increase food label use among US adults. *Public Health Nutrition, 15*(5), 760-772. doi:10.1017/S1368980011002242
2. Cha, EunSeok, et al. "Health literacy, self-efficacy, food label use, and diet in young adults." *American journal of health behavior* 38.3 (2014): 331-339.
3. Tsai, A G et al. “Direct medical cost of overweight and obesity in the USA: a quantitative systematic review.” *Obesity reviews : an official journal of the International Association for the Study of Obesity* vol. 12,1 (2011): 50-61. doi:10.1111/j.1467-789X.2009.00708.x
4. Boehm, Rebecca, et al. *Food Insecurity and Obesity Incidence Across Connecticut*. No. 1583-2019-2271. 2019.
5. Huang, Yue, et al. "Cost-Effectiveness of the US Food and Drug Administration Added Sugar Labeling Policy for Improving Diet and Health." *Circulation* 139.23 (2019): 2613-2624.