(2) 1. Why did you choose this topic and how is it relevant or why is it important to you?

We choose the topic of obesity and junk food because it is a relevant topic in the world today. Even in the popular article, it was cited that people are eating more calories a day than in the 1970s. Our food have evolved to fit our fast-paced and technologically-driven society and as a result, they have lost their nutritional value. The article we chose was one that talks about why junk food might not be what is causing people to gain weight. Instead of diets consisting of control the intake of sweets and sodas, it should about moderation and portion control. This topic is important to us because as college students, it is sometimes hard to make time to cook a nutritious meal - so we go the quick fast food option. We (along with many others) thought that junk food like candy and soda and fast food were not good for us. However, this article shows that instead of focusing on the junkiness of the food, we should just make sure that we aren't over-eating and eat in moderation in order to keep a stable BMI and stay healthy.

Popular Article:

(1) 2. What is the title of the article?

Are Junk Food Habits Driving Obesity? A Tale Of Two Studies

- (1) 3. What is the source of the popular article and when was it published? NPR. November 12th, 2015.
- (1) 4. **Is this a primary source or secondary source? How do you know?**Secondary source. Though there is original analysis within the article, it consistently cites other people who actually conducted the research and reported their results within articles.
- (2) 5. Who is the intended audience for this article? What aspect(s) of the article make this evident?

General Public. The main audience would not be scholars seeing as it is not very academic and simplifies what you might find in an actual scientific article. It is simple enough for the general population to understand, but informative at the same time.

(1) 6. List any subheadings or sections of the article.

There are no subheadings but there is a graph in between two of the paragraphs.

(2) 7. What is the author's (of the popular press article) main argument or thesis in this article? What is the article about?

The main argument is that junk/fast food intake is not necessarily what is driving obesity or body mass index, but, rather, the fact that we are consuming too many calories from all foods and it is adding up to contribute to people's obesity.

- (3) 8. Which experts or references does the author use to support his/her thesis? Are these sources credible? Why or why not? (Identify each reference/expert individually and explain.)
 - Obesity Science & Practice Journal

- Behavioral Economist, David Just, at Cornell University Food and Brand Lab
- National Health and Nutrition Examination Survey (2007-2008)
- USDA's Economic Research Service (w/ graph outlining the average daily calorie consumption per capita)
- Associate Professor, Eric Finkelstein, at Duke Global Health Institute at Duke University
- New England Journal of Medicine (2011)
- Avon Longitudinal Study of Parents and Children

The sources cited in the article are credible since most of them are coming from actual studies that were conducted on a wide group of participants, like the National Health and Nutrition Examination Survey (5,000 U.S. adults), the New England Journal of Medicine (120,000 U.S. adults over decades), and the Avon Longitudinal Study of Parents and Children (4,600 kids). As for the two individuals quoted, they are both affiliated with highly esteemed universities in Cornell and Duke, one being an associate professor, Eric Finkelstein, and the other being a behavioral economist, David Just. Moreover, David Just was the lead author of the other scientific article we selected for analysis, which was published in the journal of Obesity Science & Practice (another source). Finally, USDA's Economic Research Service is credible as it is a component of the United States Department of Agriculture and a principal agency of the Federal Statistical System of the United States.

(2) 9. Summarize in your own words the conclusions/recommendations of the article, if provided.

The takeaway from this article is to limit or minimize the amount of overall calories we eat from different foods since that is the main source of increased weight gain. As proof of this, USDA's Economic Research Service reports that Americans now eat 500 calories more daily than they did in 1970. The article also outlines which foods contribute the most to long-term weight gain. Amongst these foods are potato chips, which were found to be associated with weight gain of 1.69 pounds over a four-year period with just one extra daily serving a day. Other foods with similar effects include breaded and coated fish, poultry, french fries, processed meats, butter and margarine, and desserts, and sweets. The article is not stating that we should cut all these items from our diet, or that we can eat as much junk/fast food as we want (since there was no association between fast food consumption and body mass index), but that we should consume such items in moderation.

(2) 10. Is there any potential bias presented in the article (if so, give specific examples and explain why you think it represents bias)?

I cannot find any potential bias in the article. It is simply presenting data and information from reliable sources on what is driving obesity without offering up personal opinion.

Scientific Article:

(1) 11. What is the title of the article?

Fast food, soft drink and candy intake is unrelated to body mass index for 95% of American adults.

- (1) 12. What is the source of the scientific article and when was it published?

 Obesity Science & Practice, published on September 4th 2015
- (1) 13. **Is this a primary source or secondary source? How do you know?**Primary source. Because it is a collection of data that doesn't already exist, and it is an original work.
- (2) 14. Who is the intended audience for this article? What aspect(s) of the article make this evident?

The intended audience for this article are subscribers to the journal Obesity Science & Practice. These subscribers would be those in the health field involved in nutrition and diet. The fact that it was chosen to be published in this journal and that the language in the paper is very scientific, for the more nutrition-educated reader.

(2) 15. What are the credentials of the lead author and with which organization/institution(s) are they associated? What does this information suggest about the author's credibility?

The lead author is David R. Just and he is associated with the Charles H Dyson School of Applied Economics and management of Cornell University. This suggests that the author is credible since he went to a distinguished school.

(1) 16. List any subheadings or sections of the article.

Objective, Introduction, Methods, Results, Discussion, Conclusion, COnflict of Interest Statement, Acknowledgements, Funding

- (2) 17. What is the study objective or study aim? (Describe in your own words)

 The objective of the study was to examine whether the frequency of the intake of junk food related to BMI and if the values found are over-compensated for by people who have extreme BMI values (like the obese and underweight).
- (2) 18. Summarize the conclusions (the primary findings) of the study in your own words.

The was no relationship between BMI and the frequency of eating junk food. To lose weight, focus should be more on the reduction of caloric intake rather than limiting junk food.

(3) 19. Highlight the information on limitations in the scientific article and note the page number here:

P. 127 on the article

What do the author's mention as limitations of the study? (Explain for full credit):

The author's mention only one limitation being that they did not analyze the total quantity of the food consumed. They focused more on the frequency of eating, or how many times a day a person at junk food, versus the literal amount eaten. We see this is a pretty big limitation. If a person ate 1 snack a day but it was a full roll of cookie dough, that would cause someone to become obese over time. Whereas, if someone had 2 snacks a day and they were chips and a mini-snickers candy, but ate non-junk food the rest of the day and exercised, then they wouldn't become obese over time. To expand their study, they could

measure the amount of junk food that the person is consuming per day and maybe make it a 3-day food analysis instead of a 2-day one.

(2) 20. Is there a funding source identified and who is it? How might this funding source influence the conclusions of the study?

There were no outside sources for funding for this article. Although, the other author was a member of the McDonald's Global Advisory Council and on the EAT Initiative for Sustainability, so this could influence the study. However, I don't think this study was heavily influenced because the data is fairly straightforward. Nevertheless, it is interesting that the conclusion says that eating junk food is okay because that would just further businesses like McDonald's.

Comparison:

(3) 21. How are the two articles similar? Give 3 specific examples.

- Association between fast food, soda, sweets and BMI The
 research article proved that the association between intake of these
 foods and BMI is negative (seen in conclusions). The article cites this
 article but further says the frequency of eating junk food did not correlate
 to BMI; however, that it is important to limit junk food and eat it in
 moderation (paragraph 4 and 11).
- 2. Go against clinical advice to lower frequency of junk food in order to lose weight The scientific article says that "While advising any person to reduce their frequent intake of indulgent foods is healthy advise, it does not appear to be a guaranteed key to weight loss". The article cites the scientific article saying, "there is no association between body mass index and how much fast food, sugary sodas, and sweets people consume".
- 3. Alternate way of reducing weight would be to reduce calories in total rather than limit the frequency of junk food intake, as that has no correlation to BMI. In the scientific article the researchers found that, "Reducing total calories of food eaten at home and the frequency of snacking may be more successful dieting advice for the majority of individuals". The popular article restated this with a quote from the researcher from the scientific article saying, "We are eating too many calories from all foods" and further says to focus on moderation of foods in general, not just of junk food.

(3) 22. How are the two articles different? Give 3 specific examples.

- Scientific Article contained more numerical information. Every paragraph had data to support it from the study. There was a graph on page 129 summarizing their data.
- The popular article includes information about another study on children, "over a three-year period, every 25-gram serving of potato chips that kids ate daily was linked to about a half-pound of excess weight gain" (3).
- The popular article had interviews from the scientist behind the
 research, allowing for a more conversational tone to the article versus
 the factual tone of the scientific article. The language of the scientific

article was very scientifically driven with words that a lay-person would not understand such as p-value, "'I suspect we're eating too many calories from all foods,' Just says" (1).

(2) 23. What additional information do you think should have been included in the popular article and why?

Even though it's not a scientific article, it could of had more numerical values in order to back up it's claims. Some of the information didn't seem factual enough, leaving the reader not confident in the information presented.

(2) 24. What additional information do you think should have been included in the scientific article and why?

Information focusing more on how the frequency of intake of fast foods, soft drinks, and candy correlates to BMI. The article focused on if the epidemiological relationship between the frequency and intake of those foods were "driven to extreme tails". Instead of just looking at the correlation of BMI to frequency of consumption for those in a normal BMI, it would have been helpful to compare to an underweight and overweight BMI consumption in order to verify that the frequency of intake didn't relate to lower/higher BMI ranges.

(3) 25. Are the recommendations from the popular article reasonable or overstated given the findings from the scientific article? Why or why not?

The article doesn't give direct recommendations, but it does suggest to lower caloric intake or eat all foods in moderation, just just junk food. That suggestion is reasonable and is supported by the two scientific articles cited, along with the graph of average daily calorie consumption from foods. It is reasonable and healthier to lower caloric intake rather avoid food groups all together.

(3) 26. Which of the two articles would you recommend if someone asked you for information on this topic and why?

For a lay person, the more popular article seems fitting since it is easier to read and relates information from multiple sources. The scientific article is harder to read because it's purely fact based and doesn't read as smooth as the popular article. Also, the popular article puts the scientific article into lay-person terms and skips right to the conclusion portion of the scientific article.