Nutrition Misinformation in Media Assignment (800 words)

My assigned life stage for the assignment is: Old age.

Media article I selected for this assignment is: High Dose Vitamin D No Better Than Low Dose. The New York Times. January 16, 2019. https://www.nytimes.com/2019/01/16/well/eat/high-dose-vitamin-d-no-better-than-low-dose.html

The original research study described in the mainstream media article is:

Aspray, J, Chadwick, T, Francis, M, et al. Randomized controlled trial of vitamin D supplementation in older people to optimize bone health. https://academic.oup.com/ajcn/article/109/1/207/5280801. Published January 8, 2019. Accessed December 04, 2020.

Research study and its findings: According to the article, with vitamin D being a common supplement among older aged individuals, many studies have suggested that supplementing with this vitamin may increase bone health. This purpose of this research study was to observe the effects of vitamin D supplementation on the effects of change of bone mineral density (BMD) at the hip. BMD is the amount of bone mineral in bone tissue, which often decreases as you age. For this research study, 379 adults (48% women, 52% men), aged 70 or higher from Northeast England were randomly given one out of three doses of vitamin D. The doses were 12,000 IU, 24,000 IU, and 48,000 IU and were to be taken orally once a month for the duration of one year. Only 343 of the participants completed the study. As a participant, this group had to undergo a

number of questions to be sure that they were healthy enough to participate. Participants were measured the same way at the beginning and at the end of the study. During the experiment, participants were instructed to follow a strict diet and visited the clinical every three months after fasting overnight. On those days, they were also instructed to give a urine and blood sample and completed questionnaires to further collect information. By the end of the 12 months 343 participants were left. The study did not include a placebo group. At the end of the study scientists found that there was no change in sun exposure and the dosage of vitamin D did not change the amount of bone mineral density within 12 months.

Critical evaluation of research article and comparison with the related mainstream media article:

- **The study was too generalized.**
    - This study was conducted on 379 adults aged 70 or older from northeast England. Although the study was randomized, the individuals who participated were all from the same region. The New York Times states that the study was done on British men and women, but their audience is more diverse, and the news article is very generalized.
- **Article doesn't discuss how many people actually completed the study.**
    - The article mentions that the study was done on 379 (100%) participants, but the original research study says only 91% of the participants were able to complete the study. This may show that the New York Times did not fully read the study or is picking-and-choosing which data to share to the public.

- **The article does not mention the sponsor.**
    - The sponsor for the study was Newcastle upon Tyne Hospitals Trust, which may cause the data to be biased. The sponsor has their demands on what to be researched and there could also be limited funding, so the researchers may have to manage a budget if certain things come up that they may want to explore more.
- **The title attempts to persuade the audience into thinking one conclusion.**
    - The motive of the news article seems to be profit oriented. The more views, the better. The title of the article is used to capture the attention of the audience and already reveals the conclusion. This is an example of a framing effect. Rather than having the readers come to their own conclusion with an unbiased title, they describe a negative connotation to high doses of Vitamin D.
- **The way the doses were administered is impractical to the general population.**
    - The research study says doses of Vitamin D were given 1-3 times a month. The article does not mention this at all. Since it was given only 1-3 times per month, we are under the assumption that the dosage would be extended effectively into the participants over the monthly duration, however, this is unrealistic since the participants should have been supplemented daily. This is a major concern for studies because it is nearly impossible due to the cost and participant expectations.

Four other mainstream media articles that discuss the *same research study* as the original media headline article:

1. ‘No Benefit’ of Vitamin D to Over 70’s, Suggests Study
   https://www.nutraingredients.com/Article/2019/01/23/No-benefit-of-vitamin-D-to-over-70-s-suggests-study#
2. Does Vitamin D Supplementation Improve Bone Health in Older Adults?
   https://www.endocrinologyadvisor.com/home/topics/bone-metabolism/does-vitamin-d-supplementation-improve-bone-health-in-older-adults/
3. Higher Doses of Vitamin D Supplements May Be Unnecessary for Seniors
   https://medicalnewsbulletin.com/higher-doses-vitamin-d-supplements-seniors/
4. Vitamin D of No Use to Those Over 70? Experts Clarify the Research
   https://medicalnewsbulletin.com/higher-doses-vitamin-d-supplements-seniors/