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#### Patient Education: Sodium Awareness in Bomoseen, VT

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# Patient Education: Sodium Awareness

Bomoseen, VT

Ashley Adkins, Rotation 3, 2017

Mentor: Dr. Bradley Berryhill





# **Problem Identification and Description**

While in this clinic, it was observed that many providers gave suggestions of sodium limitations to patients with salt sensitivities, such as those with hypertension, heart failure, chronic kidney disease, and fluid overload not otherwise specified. These patients often have difficulties adhering to these limitations for a variety of reasons, one of which is incomplete awareness of the sodium content of the American diet. This project aims to provide education for these individuals in a visual manner that will aid them in making informed decisions and promote healthy lifestyles.



# **Public Health and Community Costs**

- ≥28% of individuals in Rutland County have diagnosed hypertension, and it is estimated that many more are undiagnosed. I
- >3% of Vermonters have chronic kidney disease with an incidence of 188.3 cases per 1 million Vermonters. I
- In 2009, Medicare spent \$29 billion (6% of the Medicare budget) on individuals with end stage renal disease<sup>2</sup>
- ▶ 10% of Rutland County adult population has Cardiovascular Disease, compared to 8% of the total Vermont population with this condition.



# **Community Perspective**

Dr. Jeffery Stall: "Salt balance is life's balance. When I have patients who have to adhere to salt limitations, I find that many of them have difficulties sticking to these diets and are unsure about what foods to avoid. Limiting salt in these populations is crucial and we always strive to provide these patients with more education regarding their situations"

Diana Johnson, RN: "Many of my patients with chronic diseases that have salt restrictions require extensive education regarding their diets. I think addressing this issue and increasing patient awareness will significantly improve patient outcomes and help reduce the workload for the staff at Castleton Family Health Center."



# **Intervention and Methodology**

A poster was made to provide a visual representation of sodium content in a variety of food groups. The illustrated foods chosen for the poster were based on data and guidelines from the American Heart Association<sup>3</sup> and a study in 2013-2014 of Sodium Intake in the United States<sup>4</sup>.

The 6 highest sodium contributing food groups in the American diet (bread and rolls, cold cuts, sandwiches, soup, pizza, tacos and burritos) were identified by that study and were referenced in the aforementioned AHA guidelines. These were subsequently represented by examples from popular name brands and the sodium content displayed on the poster numerically and visually (small bags filled with the respective amount of table salt). The sodium content of these foods was obtained by the companies' nutritional facts from their respective websites. 5,6,7,8,9,10,11,12,13

Three other foods were chosen to represent popular fast food choices (McDonald's and Subway) and one frozen meal (Stouffer's), to illustrate fast meal options available at grocery stores.

This poster was created and intended to be displayed in patient examination rooms at Castleton Family Health Center. The providers will be given access to these posters to display them as they feel appropriate and beneficial to their patient population.



#### **Results**

- The poster was created and evaluated by a number of medical staff who believe that this will be beneficial to patients specific to this practice.
- Providers stated that this poster was easily digestible, visually appealing and will provide a crucial element for patient education.
- The preliminary poster was shown to a few patients for their input and was received well. They stated that they were surprised by some of the amounts illustrated and would consider avoiding some of those foods in the future.



## **Evaluation of Effectiveness and Limitations**

- To understand the effectiveness of this poster, it would be helpful to illicit patient perspective to address the following: what they learned from the poster, if they became more aware of high sodium food groups that they were consuming, and if this will assist them in making dietary changes in the future.
  - This could be evaluated through a short questionnaire and the poster subsequently modified to better reach this population
- Limitations include: the size of the poster limited the number of food groups illustrated, inability to evaluate local non-chain restaurant items, inability to tailor specifically to individuals diets
  - This could be remedied by making multiple posters with different foods on them. Local non-chain restaurants could evaluate their own sodium content and display it on their menus so patients can make informed decisions. Individuals who need specific counseling should be referred to a nutritionist/dietitian.

## Recommendations for future interventions

- After evaluation of the effectiveness of this poster, adjustments can be made to better suit this population and illustrate the most common foods they consume
- Having multiple posters that illustrate different food options could be beneficial to patients so they can understand a variety of food
- Providing a short interactive presentation for patients to ask specific questions about their individual situations and to provide more extensive education regarding the importance of this topic to their health

## References

- Division of Health Surveillance. (2017, June). 1305 Surveillance: State Public Health actions to Prevent and Control Diabetes, Heart Diease, and Associated Risk Factors and Promote School Heath, Data Pages. Retrieved from http://www.healthvermont.gov/sites/default/files/documents/pdf/HS\_1305\_Data\_Pages\_081816.pdf
- 2. Honeycutt, A. A., Segel, J. E., Zhuo, X., Hoerger, T. J., Imai, K., & Williams, D. (2013). Medical Costs of CKD in the Medicare Population. Journal of the American Society of Nephrology, 24(9), 1478-1483. doi:10.1681/asn.2012040392
- 3. Van Horn, L., Carson, J. A. S., Appel, L. J., Burke, L. E., Economos, C., Karmally, W., Kris-Etherton, P, et al (2016). Recommended Dietary Pattern to Achieve Adherence to the American Heart Association/American College of Cardiology (AHA/ACC) Guidelines: A Scientific Statement From the American Heart Association. Circulation, 134(22), e505–e529. https://doi.org/10.1161/cir.00000000000462
- 4. Quader ZS, Zhao L, Gillespie C, et al. Sodium Intake Among Persons Aged ≥2 Years United States, 2013–2014. MMWR Morb Mortal Wkly Rep 2017;66:324–238. DOI: http://dx.doi.org/10.15585/mmwr.mm6612a3.
- 5. Papa John's International Inc. (2015-2016). Papa's Nutritional Calculator. Retrieved July 31, 2017, from <a href="http://www.papas-nutritional-calculator.com/">http://www.papas-nutritional-calculator.com/</a>
- 6. Cambell's Soup Company (2017). Campbell's Nutrition & Wellness. Retrieved August 01, 2017, from http://www.campbellnutrition.com/NutritionFinder
- 7. McDonald's, (2016-2017), Nutrition Calculator, Retrieved August 01, 2017, from https://www.mcdonalds.com/us/en-us/about-our-food/nutrition-calculator.htm
- 8. Société des Produits Nestlé. (n.d.). Stouffer's | Freshly Made, Simply Frozen Dinners. Retrieved August 01, 2017, from https://www.stouffers.com/en/our-dishes/Meatloaf/189
- 9. Taco Bell IP Holder, LLC. (2017). Nutrition Calculator. Retrieved August 01, 2017, from https://www.tacobell.com/food/nutrition/calculator
- 10. Subway IP Inc. (2017). Italian B.M.T. Nutrition calculator. Retrieved August 01, 2017, from http://www.subway.com/MenuNutrition/Menu/Product?ProductId=4263&MenuCategoryId=1&MenuTypeId=1
- Tyson Foods, Inc. (2017). Ultra Thin Sliced Honey Ham. Retrieved August 01, 2017, from https://www.hillshirefarm.com/products/lunchmeat/ultra-thin-sliced-honey-ham
- 12. Flower Foods. (2017). Whitewheat®. Retrieved August 08, 2017, from http://www.naturesownbread.com/sandwich-bread/whitewheat
- 13. Panera Bread. (2017). Panera Bread Nutrition Information. Retrieved August 1, 2017, from https://www.panerabread.com/content/dam/panerabread/documents/nutrition/Panera-Nutrition.pdf



# **Informed Consent Statement**

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library Scholar Works website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.

Yes \_x\_\_\_ / No \_\_\_\_

Names: Dr. Jeffery Stall and Diana Johnson, RN