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Advocating Powerhouse Fruits & Vegetables

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Advocating Powerhouse Fruits & Vegetables

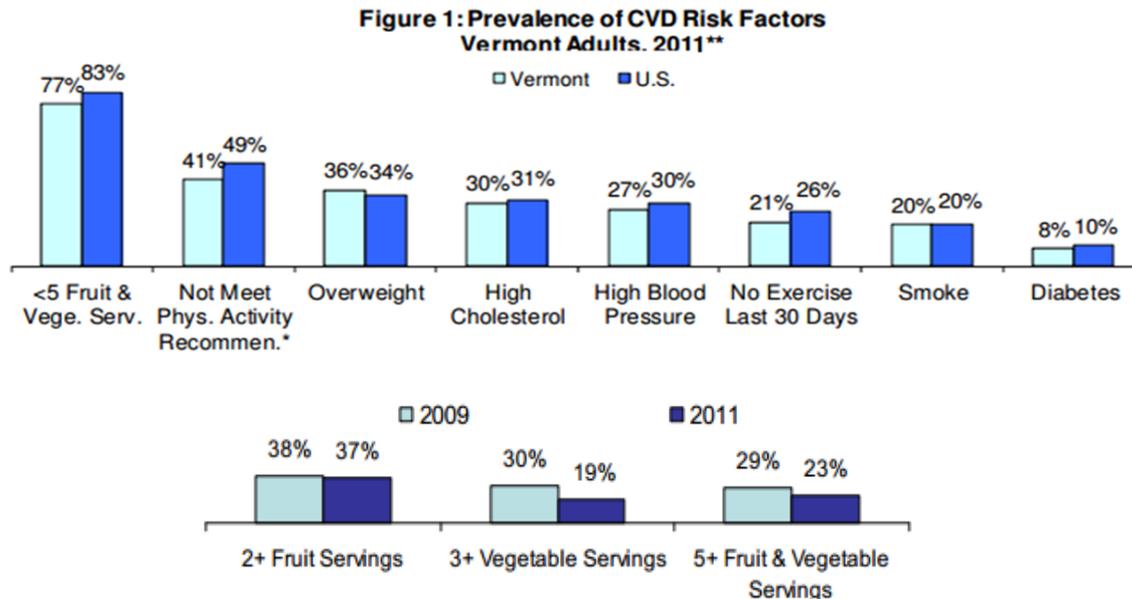
Christine Tran

Family Medicine Clerkship
July-August 2014

Preceptors: Dr. Ulager,
Dr. Sirois, Dr. Humphrey,
Dr. Cangiano, & Dr. Mertz

Identification of Problem

- Consuming fewer than 5 fruits and vegetables is the most prevalent cardiovascular disease risk factor in the US and VT.
- 5+ fruit and vegetable servings in VT have declined 6% since 2009



*Age adjusted U.S. 2000 population.

Need

- Four main barriers preventing patients from consuming fruits and vegetables:

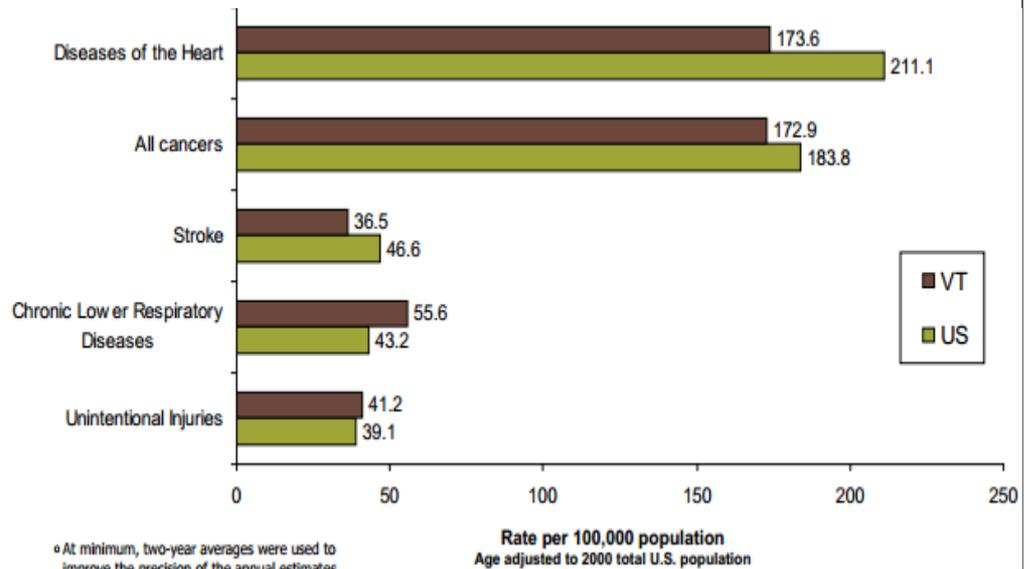
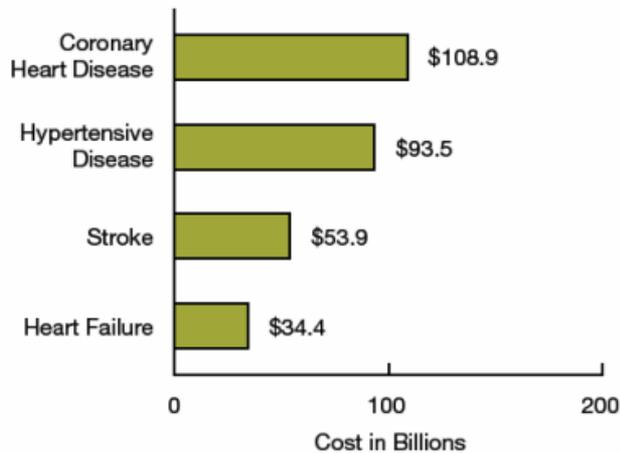
- 1) Time
- 2) Cost
- 3) Taste preference
- 4) Lack of information**



Public Health Cost

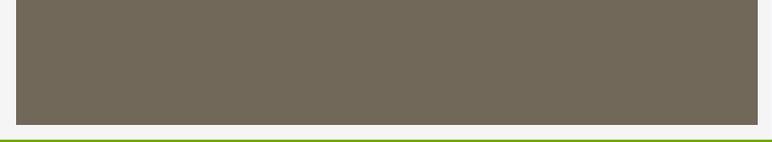
- Cardiovascular disease accounts for approximately \$1 of every \$6 spent on healthcare in the US
- Cardiovascular disease is the leading cause of death in both the US and VT

Estimated Direct and Indirect Costs of Major Cardiovascular Diseases, United States, 2010



○ At minimum, two-year averages were used to improve the precision of the annual estimates.

Rate per 100,000 population
Age adjusted to 2000 total U.S. population



Community Perspective

- **Name withheld, Hinesburg Family Practice:** Patients often find the recommendation to eat more fruits and vegetables to be “common sense,” and yet too general/vague to successfully build into daily living/eating.
- **Name withheld, Nutrition Supervisor:** Implementing long-term healthy eating is very difficult in the community due to misinformation and income.

Intervention & Methodology

- **Research literature about fruit and vegetable recommendations**
- **Create a clear nutrition pamphlet and smartphrase to educate patients on CDC's top powerhouse fruits and vegetables** (most dense in *potassium, fiber, protein, calcium, iron, thiamin, riboflavin, niacin, folate, zinc, vitamins A, B6, B12, C, D, E, and K*)
- **Lunch meeting with staff to discuss use of pamphlet and smartphrase**
- **Providing patients with information will help:**

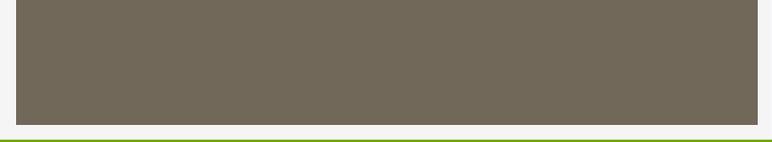
*Precontemplative or patients who dislike fruits and vegetables: convinced to eat the most nutrient-dense foods at the very least

*Contemplative patients: make concrete plans and act

*Action patients: eat more of the most beneficial foods

Responses

- Dr. *Name withheld* : “This is great for patients. I never knew about some of these vegetables and I have been educated extensively on nutrition.”
- *Name withheld*, medical assistant: “I think this would be a very helpful guide to take to the market.”
- *Name withheld*, medical assistant: “This is something I can use when thinking of what to cook.”
- *Name withheld* : “I love this. I think this will be incredibly helpful for patients who want to make a change.”
- Dr. *Name withheld* : “I’m so glad you made this. We don’t usually have enough time to go into detail about nutritional education with patients and sometimes feel a nutritionist is too big of a first step so this is a great start.”
- Dr. *Name withheld* : “This is fantastic. I think it is easy to read and the pictures will help patients find what they’re looking for. When eating healthy is a challenge, a simple list with basic information is the clearest way to educate.”
- Dr. *Name withheld* : “I think this will be helpful for patients and I think the smartphrase will make it very easy to distribute nutritional information to patients.”



Evaluation & Limitations

- Evaluation: Reception at clinic lunch was overall very good. Staff found the pamphlet to be educational, easy to read, and interesting enough to encourage some diet changes.
- Future Evaluation: Survey patients on effectiveness of pamphlet and smartphrase print-out, focusing on ease of understanding, practicality, and accessibility.
- Limitations: Success of the pamphlet completely depends on patient motivation. Pamphlet does not address issues of cost, time, or serving sizes.

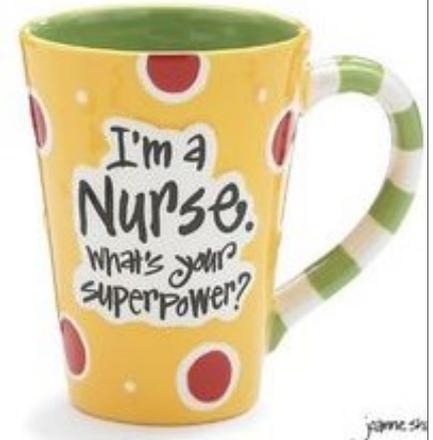
Future Projects

- Survey patients and staff to learn how to best improve pamphlet for increased success
- Review effectiveness of smartphrase and edit accordingly.
- Compile information on which local markets sell what and average cost
- Contact Vermont Department of Health about updated fruit and vegetable servings trend to assess changing need

References

1. [Ams.usda.gov](http://ams.usda.gov)
2. [Cdc.gov](http://cdc.gov)
3. [Healthvermont.gov](http://healthvermont.gov)
4. Noia, JD. Defining Powerhouse Fruits and Vegetables: A Nutrient Density Approach. *Preventing Chronic Disease*. Vol 11 Jun 5, 2014.

THANK YOU HINESBURG!!!



I listen to the voices
in my stethoscope

