

University of Vermont

UVM ScholarWorks

Family Medicine Clerkship Student Projects

Family Medicine Community

2022

Addressing Diabetes Education in Chittenden County

Varun Gupta

Larner College of Medicine at The University of Vermont

Follow this and additional works at: <https://scholarworks.uvm.edu/fmclerk>



Part of the [Medical Education Commons](#), and the [Primary Care Commons](#)

Recommended Citation

Gupta, Varun, "Addressing Diabetes Education in Chittenden County" (2022). *Family Medicine Clerkship Student Projects*. 831.

<https://scholarworks.uvm.edu/fmclerk/831>

This Book is brought to you for free and open access by the Family Medicine Community at UVM ScholarWorks. It has been accepted for inclusion in Family Medicine Clerkship Student Projects by an authorized administrator of UVM ScholarWorks. For more information, please contact schwirks@uvm.edu.

Addressing Diabetes Education in Chittenden County

Varun Gupta MS3

Michelle Cangiano, MD

UVMMC Hinesburg Family Medicine

March-April 2022



The University of Vermont
LARNER COLLEGE OF MEDICINE

Problem Identification and Description of Need

Problem: Lack of adults diagnosed with diabetes who had diabetes education.

- I looked at the *Healthy Vermonters 2020 – Quick Reference Chittenden County*¹ to identify public health needs in Chittenden county that were not being met.
- I learned that Chittenden County and Vermont were both falling short of state goals and national standards in the “percent of adults with diagnosed diabetes who had diabetes education”
 - County Current (2015): 40%
 - VT Current (2015): 45%
 - US Current (2015): 55%
 - Target: 60%

Public Health Costs

- According to the American Diabetes Association, Diabetes costs around \$520 Million in Vermont and \$327 Billion in the USA, making up 25% of all healthcare expenditures in the country^{2,3}.
- 8.8% of Vermonters have diagnosed diabetes and 33.6% have prediabetes, accounting for over 200,000 people, with at least 4,437 people newly diagnosed with diabetes every year.
- Additionally, in Vermont there are over 14,000 people who have diabetes but don't know it.
- Unfortunately diabetics in Vermont have medical expenses 2.3 times higher than those who do not.

Community Perspective on Issue

- I interviewed a Nurse Practitioner at UVMMC Hinesburg Family Medicine and 2 diabetics from the community who are patients at the practice to get their insight on what information is lacking in current diabetes education and how to better increase education for newly diagnosed diabetics.
- Both the patients I interviewed had not received any formal diabetes education, even though one of them had been a diabetic for years, seen endocrinology and was now on insulin.
- One of the patients was not even informed of his diagnosis when his blood work came back from a specialty appointment.
- Both patients had been using insights and resources provided by family and friends in the place of formal diabetes education, including what to eat and what foods to avoid. Accessibility to diabetes education, including getting an appointment to see a provider was cited as one of the biggest issues.

Intervention and Methodology

- To address the deficits in Diabetes Education proposed by the community members interviewed, a educational pamphlet will be created to fill in the educational gaps in Family Medicine offices that new Diabetics may have.
- This document would have recommendations on foods to eat, recipes to try and resources to get more formal educational services for Diabetes.

Results/ Response

- The result of the interviews and my interventional goals was a single page informational guide that was created for new diabetics, as pictured on the right^{4,5,6,7,8,9}.
- This document listed
 - General guidelines on what foods to eat
 - Healthy recipes to try from the American Diabetes Association
 - **Diabetes Education Resources, including free in person longitudinal group workshops held in Vermont**

What to Eat

Vegetables

- nonstarchy: includes broccoli, carrots, greens, peppers, and tomatoes
- starchy: includes potatoes, corn, and green peas

Fruits

- includes oranges, melon, berries, apples, bananas, and grapes

Grains

- at least half of your grains for the day should be whole grains
- includes wheat, rice, oats, cornmeal, barley, and quinoa
- examples: bread, pasta, cereal, and tortillas

Protein

- lean meat: chicken or turkey without the skin
- fish
- eggs
- nuts and peanuts
- dried beans and certain peas, such as chickpeas and split peas
- meat substitutes, such as tofu

Dairy

- milk or lactose-free milk if you have lactose intolerance
- yogurt
- cheese

Great New Recipes to Try!

<https://www.diabetesfoodhub.org/articles/create-your-plate-simplify-meal-planning-with-the-plate-method.html>

<https://www.diabetesfoodhub.org/>

Scan the QR codes with the camera on your phone or type the links above.

Diabetes Education Resources

Free In Person Diabetes Workshops hosted by My Healthy Vermont

- Meets once a week for 6 weeks all throughout Vermont
- Run by professionals
- Allows patients to meet with other members of the community with similar goals
- <https://www.myhealthyvt.org/workshop/diabetes-management/>

Find Diabetes Education Programs sponsored by the American Diabetes Association

- <https://www.diabetes.org/tools-support/diabetes-education-program>

UVM Medical Center Diabetes Education

- <https://www.uvmhealth.org/medcenter/conditions-and-treatments/diabetes-self-care-programs>
- Call 808-847-4576

The Diabetes Plate Method

1 Nonstarchy Vegetables
2 Protein Foods
3 Carbohydrate Foods
4 Water or 0-Calorie Drink

Evaluation of Effectiveness and Limitations

- Assessments to determine the effectiveness of this informational pamphlet in educating new diabetics or in helping them get formal education about diabetes could be measured in the following ways
 - Conducting a survey among new diabetics who received this handout asking them if they felt it was informative or if it helped them find more resources to better manage their diabetes.
 - Splitting newly diagnosed diabetics into 2 groups: 1 group that would be provided this pamphlet and 1 without and then measuring the change in Hemoglobin A1C from their baseline value upon diagnosis over a 6 month span and then asking them if they felt this guide helped them to better manage their diabetes, and if so then how.
- Unfortunately due to the limited and short time span for this project these evaluations could not be implemented for us to compile data regarding its effectiveness.

Future Recommendations

Future projects

- May assess the effectiveness of this informational guide as outlined in the previous slide.
- May help print this handout and distribute it to primary care offices in Chittenden county so it is available for newly diagnosed patients.
- May add this handout to Epic so it can easily be added to a patient's After Visit Summary.
- Explore ways of increasing access and availability of Diabetes Educators, given that cost and staffing is a huge issue in Vermont.

References

1. https://www.healthvermont.gov/sites/default/files/documents/pdf/HV2020_ChittendenCounty.pdf
2. https://diabetes.org/sites/default/files/2021-11/ADV_2021_State_Fact_sheets_Vermont_rev.pdf
3. <https://www.diabetes.org/about-us/statistics/cost-diabetes>
4. <https://www.niddk.nih.gov/health-information/diabetes/overview/diet-eating-physical-activity>
5. <https://www.diabetesfoodhub.org/articles/create-your-plate-simplify-meal-planning-with-the-plate-method.html>
6. <https://www.diabetesfoodhub.org/>
7. <https://www.myhealthyvt.org/workshop/diabetes-management/>
8. <https://www.diabetes.org/tools-support/diabetes-education-program>
9. <https://www.uvmhealth.org/medcenter/conditions-and-treatments/diabetes/diabetes-self-care-programs>

Interview Consent Forms

- Consented: Kathryn
Butterly, Lee Martin,
William Benoit



The University of Vermont

LARNER COLLEGE OF MEDICINE