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Transportation is a Barrier to Healthcare in Central Vermont

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Transportation barriers to healthcare in the Central Vermont area:

A Survey and Intervention at the UVMHN Berlin Family

Medicine Practice

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Family Medicine Rotation #1, April 2016

Main Preceptors: Drs. Stafford, Jensen, Bamford, Rodriguez, and Kowalski

2A Transportation is a significant barrier to healthcare in Central Vermont

- Transportation is a major barrier to healthcare. In reviewing 61 studies 3%-67% of people in a population have transportation problems, particularly those with the largest risk factors of lower socioeconomic standing and under-insurance [1].
- At particular risk in central Vermont, are people <65 yrs old, low income households, no vehicle households, and residents with disabilities. Folks with disabilities often have longer transit times to medical appointments [2,5].
- The area's primary transportation provider, GMTA, in 2010 provided coverage to about 30% of the population, but only covered about 6% of land mass [2].
- In a survey conducted by GMTA, the highest need was in "more frequency" of transportation to/from the South Barre/Barre Town area [2].
- Elderly persons have overwhelming transportation barriers, says a Chittenden county study that cited 69% of elderly delaying medical attention and a W. Virginia study that was completed in 6 rural communities [3,4].
- Rural communities around the U.S have a similar problem. In a study that surveyed over 500 rural people in N and S Dakota, Wyoming, and Montana, distance and access to transportation makes a patient more likely to miss an apt [6].

The highest concentrations of low-income households are located in Barre City, south-eastern Barre, portions of Montpelier, Northfield Falls, and eastern Berlin [2].

DISABILITY

LOW INCOME HOUSEHOLDS

2B Specific factors that contribute to transportation barriers in Central VT

ZERO VEHICLE HOUSEHOLDS

Only about 5% of the area are zero vehicle households [2].

ELDERLY AND AREAS WITH POOR PUBLIC TRANSPORTATION COVERAGE

High concentration areas of elderly are covered by GMTA, but rural areas with lower concentrations can be overlooked [2].

3 Public Health Cost

- ▶ In 2012, CVMC donated \$10,000 to GMTA to improve shuttle routes and had a safety-net budget of \$3,000 to help patients get home safely [2]. Costs of transportation are a significant deterrent to seeking medical care in central Vermont [2].
- ▶ In 2015, a partnership between the medical center and GMTA allowed for the funding and creation of a free, door to door transportation service to for residents in Barre and surrounding communities to travel to the medical center, pharmacy, and grocery store [7]. This service could be potentially underutilized [7].
- ▶ Expansion of GMTA service is expected to approximately triple the costs to about \$8,658,000 [8]. Increasing transportation availability is not a cheap task!
- ▶ Healthcare in the U.S. is set to reach a whopping 3.2 trillion dollars and \$10,000 per person [9]. Given the recent interest in preventative care and in cost reduction, having patients who are unable to reach appointments due to transportation could be costly to the system.

4A Community Perspective

" In this particular practice there are cases where a patient is suitable for assistance with medications but they are required to travel north to Burlington (~45 miles) to pick it up. Even if they have a vehicle they may not be able to afford the gas to get there. I recently had a patient who had to cancel their cataract surgery down at Dartmouth as it would be 7 trips down, her son has a truck but they could not afford the gas to get there. Outside funding for this gas made it possible for her to reschedule her appointments. I've also heard of instances where GMTA needs a certain amount of notice and were unable to provide transportation on short notice-even in an urgent situation. There is also a person who has had so many previous poor instances with public transit---she does not use them any longer and a local agency provides transport to her many appointments. So, issues with transportation have prevented folks from the ability to pick up affordable medications, same day PCP visits and other medical situations that come up on short notice."

Me: How do you feel about the newest transportation (free shuttle on slide 4) we discussed about in person?

Kate: Sounds fantastic! Let's hope they have the staff to support the need. We will get the word out better.

Me: I am surveying patients in the practice and asking them what further barriers they have to transportation? How do you think this can be helpful in the long run?

Kate: " It will be helpful because they are the ones living this struggle daily, what better place to get your information and accurately."

Kate Bean, RD, CDE
Health Coordinator
Community Health Team
UVMHN-CVMC

4B Community
Perspective

“

Me: What is your experience in transportation being a barrier to patient care?

T: I work with cancer patients and we are committed to removing transportation obstacles. We use a volunteer program through the American Cancer Society that is very effective for our patients. We also use GMATA and RCT, which are very helpful. We have a staff person (me) whose assigned tasks include arranging transportation. Without these resources, transportation would be an issue but we can always (or almost always) meet the need.

Me: What do you think can be done to improve the situation?

T: I do not know what the need is for general medical services and don't know what changes would be helpful. I do know that the public transportation agencies provide transportation for Medicaid patients but if you don't have Medicaid or you've lost it temporarily and you need to use the agencies' volunteer driver program because you're not on a bus route, the cost is prohibitive (the client pays mileage).

Me: Which one aspect, such as having a car or having money for gas etc, do you think contributes the most to transportation issues?

T: In my experience, which may be different because it's cancer care, having a car is usually not the issue. Our patients often need rides because they are too ill to drive themselves and a family member or friend is not available. The cost of gas is also an issue, as is the need for car repairs. Again, we have a special resource for this in our cancer patient fund.

”

5A Intervention and Methods

Did you know about our NEW transportation SERVICE?

**UVM Health Network -
CVMC Barre Health Shuttle**

- Free, door-to-door service

- Hours of Operation: 9:00 am - 3:00 pm

Call GMTA 802-223-7287 Mon - Fri, 7:30 AM - 4:30 PM for more information and to reserve a ride

Regular Appointments:

- Make reservations at least 24 hrs before your appt and can be scheduled one month ahead of time.

-Monday appointments, reservations must be made by 4 PM on the prior Friday



Urgent Appointments:

-One hour in advance of pick-up

-If 9 AM - 10 AM, call must be made by 4 PM the day before

Details of Service

From: Barre City; Barre Town areas: Graniteville, East Barre, South Barre and Websterville; Williamstown ; Montpelier

To: UVM Health Network CVMC Barre Health Center; Granite City Primary Care in Barre City

- The first intervention was to (1) identify an underutilized transportation resource in the community and (2) to help spread the word regarding the resource.
- I met one-on-one with a community health team coordinator, Kate Bean, and found that the newest free transportation service, which is door-to-door, was not being utilized **at all** in the practice.
- An informational sheet was created (see left) was placed for distribution at the practice. I talked one on one with primary care clinicians regarding the new transportation, if they encounter a patient in need of it.

5B Intervention and Methods

- ▶ Since the health barriers article in 2013 [2], CVMC has taken a personal interest in transportation.
- ▶ No survey has been conducted amongst patients of practices in the area to discern if all the efforts have been beneficial. It would also help to acquire a current data set to understand the specific barriers of transportation in 2016, three years after the article.
- ▶ I coordinated with the Berlin Family Practice-UVMHN practice manager, Chelsea, in the optional distribution of a brief six question survey with the help of practice nurses. No identifiable information of any kind was collected. I did not collect information from a personal interaction with the patients.

Survey Questions:

1. What city/town and county do you live in?

2. Does lack of transportation limit your ability to visit your primary care doctor?

_____ Yes _____ No

3. Do you have access to a car in your household?

_____ Yes _____ No

4. Are the costs of transportation to the doctor's office too expensive?

_____ Yes _____ No

5. Do you have a disability that limits how often you travel to visit your primary care doctor?

_____ Yes _____ No

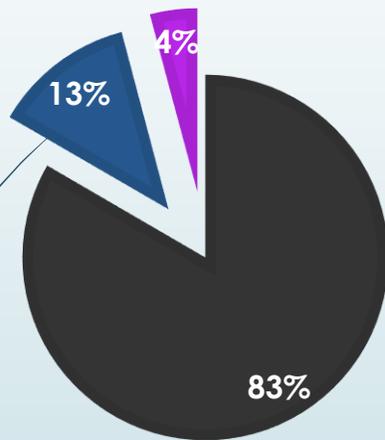
6. Is public transportation easily available to you?

_____ Yes _____ No _____ I don't know

6A Survey Results

COUNTY

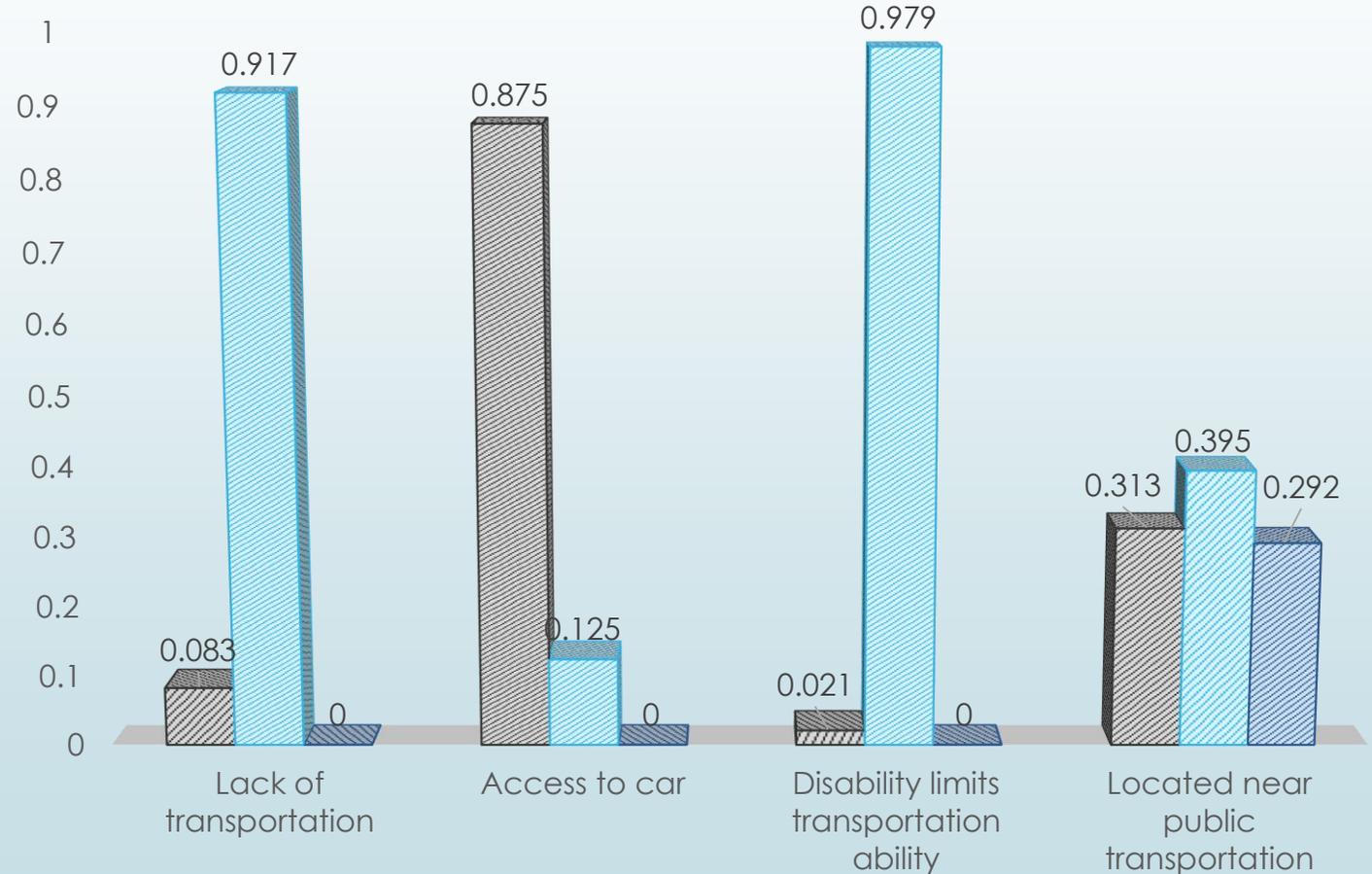
■ Washington ■ Orange ■ Other



No patients who were surveyed answered that the actual transportation costs limited their ability to visit their clinician

SURVEY RESULTS

■ Yes ■ No ■ Don't Know





6B Survey Results

- Between 8-9% of patients surveyed had problems with access to transportation that impeded their ability to seek healthcare. This is a significant number.
- Vermont patients continue to have reasonable access to cars. The same finding was noted in the 2013 review as well [2].
- Of the 8.3% of patients who did not have transportation access, 50% also did not have a car.
- In rural areas such as Central Vermont, having a car is crucial for making doctor's appointments. Only 31.3% of patients agreed to having easy access to public transportation. The lack of public transportation in less population dense areas continues to be a problem.
- About 30% did not know if they had public transportation near them. This number is not surprising considering how I found a vital, yet underutilized, transportation resource [slide #7 or 5A]. The information regarding the free shuttle was well received and the healthcare coordinator looks forward to using it in the future.

7: Evaluation of Effectiveness

- ▶ To evaluate if the new transportation shuttle is being utilized and is operational as advertised, many patients should be surveyed 6 months and 1 year from now. This will allow us to evaluate if Kate, the informational sheets, and the providers are able to spread the word.
 - ▶ Patients from Barre City; Barre Town areas: Graniteville, East Barre, South Barre and Websterville; Williamstown; Montpelier should be surveyed as they are part of the new transportation.
 - ▶ If the intervention worked, it should show an improvement in the overall percentage of people having transportation barriers from my current survey
- ▶ I hope that the survey data is useful to the central VT community to help understand the particular transportation challenges in 2016, three years after they released the article in citation 2! It will show CVMC and GMTA how effective their actions were and how much farther they still have to go.
- ▶ To evaluate if my survey was useful, I would share the results with CVMC. I would also conduct larger study to increase sample size.
 - ▶ If the data is impactful, we can hope to see a further push by CVMC to increase transportation availability for central Vermont residents.
 - ▶ A repeat survey should reflect the hopeful efforts!

Limitations

- ▶ Only patients who were able to make appointments could be surveyed. Perhaps the patients with the biggest transportation limitations are left out of surveys like this.
- ▶ Only outpatient patients were surveyed, which could potentially exclude sicker patients, such as the cancer patients Theresa Lever alluded to, who were too sick to drive.
- ▶ The sample size was limited:
 - ▶ Zero patients said “yes” to the question asking about transportation costs as a barrier, despite my interviewees stating that costs of gas can be a deterrent to patients.
 - ▶ Not enough surveys to evaluate transportation barriers by specific town/city or county
 - ▶ Not enough surveys to determine how well utilized and useful the new free transportation service is prior to my intervention.
- ▶ Data is taken from patients traveling in good weather. Colder weather could deter travel in areas with sparse public transportation or no warm place to stand. It could further impact those without cars even more.



Conduct a larger scale survey and include folks from different departments to increase co-morbidity diversity

Evaluate if the elderly have a specific transportation barrier in comparison to 2013 [2]

Talk to and survey patients from outside Washington county who still come to CVMC

8 Recommendations for future projects

Conduct a repeat study as noted on previous slide, to evaluate how well the word has spread regarding the new transportation

Follow up with CVMC with fresh data to keep increasing efforts as needed for the community. They have donated money before and are interested in the cause

Citations

1. Syed ST et al. *Traveling towards disease: transportation barriers to health care access*. J Community Health. 2013 Oct;38(5):976-93.
2. Central Vermont Medical Center. *Community Health Needs Assessment*. (2013). <http://gmcboard.vermont.gov/sites/gmcboard/files/CVMCNeeds2013.pdf>
3. Hadley Strout E et al. *Access to transportation for Chittenden County Vermont older adults*. Aging Clin Exp Res. 2015 Nov 5.
4. Goin RT et al. *Perceived barriers to health care access among rural older adults: a qualitative study*. J Rural Health. 2005 Summer;21 (3):206-13.
5. Brucker DI et al. *Trips to medical care among persons with disabilities: Evidence from the 2009 National Household Travel Survey*. Disabil Health J. 2016 Jan 20. pii: S1936-6574(16)00003-0.
6. Matteson J. *Transportation, Distance, and Health Care Utilization for Older Adults in Rural and Small Urban Areas*. Small Urban & Rural Transit Center (2010). Upper Great Plains Transportation Institute.
7. Transportation. 2015 Annual Report. CVMC (2015). <http://www.cvmc.org/annual-report/transportation>
8. Chapter 7, Costs and Funding. GMTA transit docs (2012). http://gmtaride.org/PDF/transit-docs/TDP%20Cap/Chapter7_CostandFunding.pdf
9. U.S. Healthcare Spending On Track To Hit \$10,000 Per Person This Year. Forbes (2015). <http://www.forbes.com/sites/danmunro/2015/01/04/u-s-healthcare-spending-on-track-to-hit-10000-per-person-this-year/#29ed407c294c>