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The Preventative Health Care Shortage: A Look at the VT and CT Community Perspectives and Medical Student Interest

Brittany Botticelli

The University of Vermont

Jenna Elkhoury

University of Vermont

Michael L. Lawler

University of Vermont

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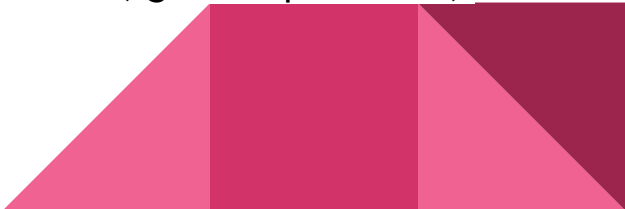
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Preventative Health Care Shortage

Brittany Botticelli, Jenna Elkhoury, Michael Lawler
Family Medicine Clerkship, November 2021
Ridgefield Primary Care
Faculty Mentor: Martha Seagrave, PA-C

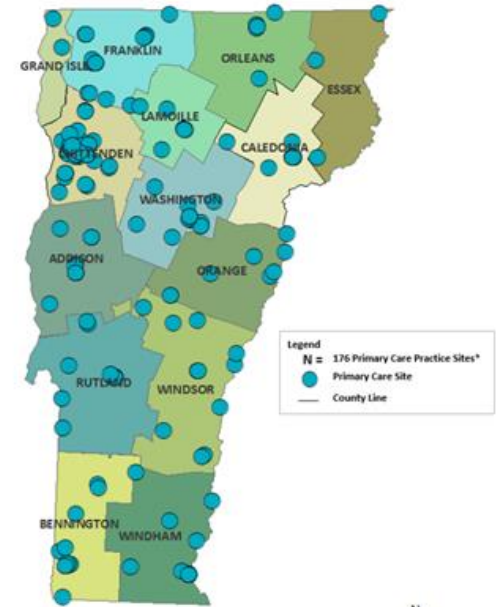
Problem Identification

- While the ACA provided more opportunity for widespread preventative care, it opened our eyes to the National primary care physician shortage
 - In 2014, The Kaiser Family Foundation estimates that 8073 additional primary care physicians are required to eliminate Primary Care Health Professional Shortage Areas from the United States, and that number continues to grow
 - While the number of medical school graduates has increased significantly over the past two decades, Medicare-funded training opportunities for graduates has remained frozen at 1996 levels... leaving over 3,100 applicants without residency match in 2019
 - America will face a shortage of up to 124,000 physicians by 2033 (Kaiser Family Foundation)
 - AAMC reports projected primary care physician shortage (family medicine, general pediatrics, geriatric medicine) to be between 17,800 and 48,000 by 2034
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Public Health Cost

- The steady increase in medical student debt is unsustainable and could cause debt burdens to climb such that by 2030 approximately 50% of physicians' after-tax income could be shunted to loan payments for projected average debt burdens of close to a million dollars (Greyson, 2011)
- Financial models have shown that primary care physicians have expenses more than their income for the first three to five years after residency and other models leave the physicians with only \$200-\$600 per month in flexible income (Marcu, 2017)
- Health care systems with a robust primary care foundation have a higher quality of care, better overall population health, greater equity, and lower health care costs (Kozakowski, 2016)
- 20% of the US population lives in rural areas but only 9% of physicians practice there (Committee, 2005, Rosenblatt 1999)

Vermont Primary Care Practice Sites
2018



*Primary Care Site (AHEC defined): see endnotes for definition
VT County map created by the VT Center for Geographic Information, <http://vci.vermont.gov>

[Primary-Care-Snapshot-2018.pdf \(svtahec.org\)](#)

Community Perspective


Medical students may choose against a career in primary care because “Primary care is not as glitzy and glamorous. It has become synonymous with the Jack of trades and master of “some.” Years ago primary care used to do many procedural based visits but the US has trained patients to go to Eds and urgent cares to get that stuff done. Returning procedural based care to family medicine physicians would dually increase the salary of the physician and decrease the cost for the patient.” - Cornelius Ferreria, MD

“We built our system to fail by de-prioritizing preventative care. This became glaringly apparent during the COVID-19 pandemic.” - Cornelius Ferreria, MD

*“Medical schools need to focus on projects and programs to support the primary care track and work with the federal government in efforts to lower tuition”
- Cornelius Ferreria, MD*

“There’s a stigma against it (primary care) being an “easy field” to go into. DO schools seem to prioritize primary and preventative care more than MD schools. We need more recognition of what primary care is in an MD education and a greater emphasis on preventative care education both before or during medical school.” - Nick Florio, MD





“Primary Care is the root of our tree with subspecialties making up its branches. We have built our system to collapse by promoting a weak base and heavy top.”

- Cornelius Ferreria, MD

The Primary Care shortage in Vermont and Medical Student Interest in Primary Care (Palanza, 2020)

Deterrents identified:

- Stigma associated with lower compensation compared to other specialties, lower board scores, and lack of respect from colleagues in other specialties
- Difficulties connecting and managing patients with brief 15-minute office visits
- Overwhelmed with managing complicated patient on an outpatient basis
- Large amount of administrative work (e.g. notes, forms, contacting other providers, etc.)
- Desire to do specific procedures


Attractors identified:

- Building relationships with patients and the community
- Preventative medicine
- Counseling patients about lifestyle and health changes and getting to see them get implemented over time
- Getting to treat the patient as a whole
- Wide variety of patients day-to-day with a large base of practice from pediatrics to adults
- Ability to do procedures and minor interventions (e.g. casting, sutures, injections, etc.)



Intervention/Methodology:

With the permission of Kenneth Palanza et al, we adapted and modified a previously generated survey that allowed us to better understand the motivations and barriers of medical students to enter primary care. The survey was dispersed to all medical students at LCOM as well as third and fourth year medical students at Ross University and American University of the Caribbean (AUC). We analyzed preliminary data from 100 respondents.



Survey to Assess Medical Student Interest in Primary Care:

What year are you in medical school?

- a. 1st
- b. 2nd
- c. 3rd
- d. 4th

What Clinical campus are you assigned to?

- a. VT
- b. CT
- c. Other

Please indicate how much you agree with the following statements:

You are interested in primary care

Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree



If primary care providers were paid the same as other specialists, you would be more interested in primary care
Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree

If primary care providers were able to spend more time doing office procedures, home visits, preventive health, and managing chronic conditions including mental health, you would be more interested in primary care
Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree

As a medical student, you believe there is stigma associated with pursuing a career in primary care
Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree

Your student loan debt and predicted compensation influence your decision to pursue a particular medical specialty
Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree

In the future, you plan to practice where you attend medical school or where you will attend residency
Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree



If there were a scholarship available for primary care (e.g. cover the cost of medical school), it would incentivize you to pursue primary care

Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree

More support or encouragement by your medical school could increase your interest in pursuing a career in primary care

Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree

Primary care providers have flexibility in choosing how much they work

Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree

Primary care providers have a variety of types of work they can do (inpatient, outpatient, research, teaching, mentoring, etc.)

Strongly Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Strongly Agree




What aspects of primary care make it appealing as a career? Please rank these options in order of importance to you (1 being the most important and 11 being least).

- Long-term relationship with patients and their families
- Focus on family/community care
- Care continuity
- Complexity of cases
- Wide breadth of required expertise
- Opportunity to do prenatal and/or deliveries
- Opportunity to do both pediatric and adult care
- Opportunity to do procedures and surgeries
- Population health
- Inpatient and outpatient opportunities
- Other - Please explain: _____



Survey Results/Response Data

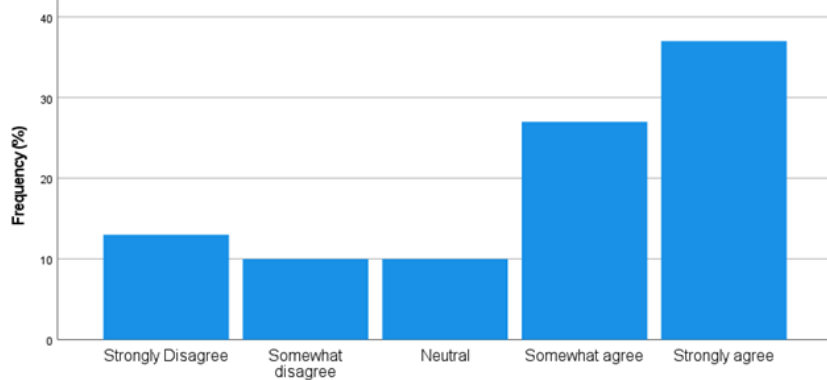
- Survey participant demographics:
 - 100 medical students were surveyed
 - Year in medical school - 1st: 11%; 2nd: 26%; 3rd: 44%; 4th: 19%
 - Clinical campus - Vermont: 73%; Connecticut: 25%; Other: 2%

 - The most highly ranked aspects of primary care that make it appealing to respondents:
 - Long-term relationships with patients and their families (most often ranked #1)
 - Continuity of care
 - Wide breadth of required expertise
 - Focus on family/community care
 - Opportunity to do procedures/surgeries
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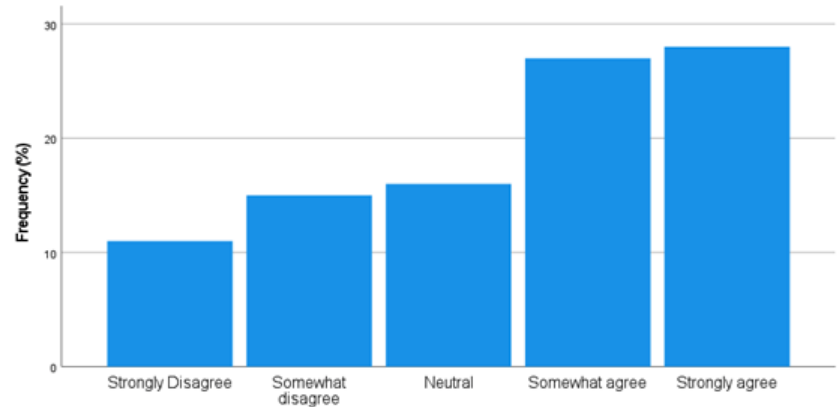
Survey Results/Response Data cont.

- 64% of students agreed that they would be more interested in primary care if they had more time for office procedures, home visits, preventative health visits, and managing chronic conditions
- 55% of students would be more interested in primary care if they were paid as much as other specialties
- 51% of students agreed that loan debt and anticipated compensation affect their choice of specialty
- 50% of students agreed that additional scholarships/tuition forgiveness would increase their interest in primary care

If primary care providers were able to spend more time doing office procedures, home visits, preventive health visits, and managing chronic conditions including mental health, you would be more interested in primary care



If primary care providers were paid the same as other specialists, you would be more interested in primary care




Evaluation of Effectiveness/Limitations

- **Effectiveness**

- Reached all students at the medical school level (1st-4th year)
- Perspectives from students in VT, CT and other schools outside the US
- Survey results helped identify attractors and deterrents to primary care for students at the medical school level

- **Limitations**

- Fewer responses from 1st and 2nd year students limits our understanding of upcoming medical students perspectives on primary care
 - Small sample size (N=101) potentially not representative of LCOM
 - Lack of responses from medical students in a DO program limits understanding of differences in education in promoting primary care (DO vs MD)
 - Need to further discuss and analyze results in order to create targeted interventions that respond to specific attractors and deterrents in each state
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Recommendations for Future Interventions/Projects

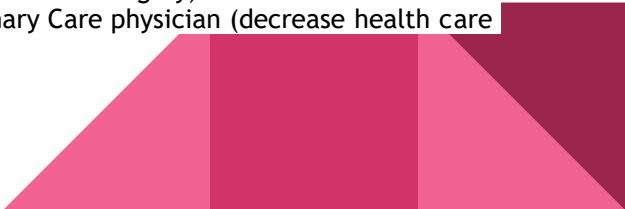
Cost of medical school tuition influences a career in sub-specialties:

- Place a limit on institutional tuition and fees
- Expand state and federal loan forgiveness programs in exchange for public service
- Federally-fund medical education

Stigma associated with a career in Primary Care:

- Increase the amount of time spent on primary/preventative care rotations as 3rd year medical students
- Reformat Allopathic education to highlight preventative care similarly to IMG and many DO educations
- Plan to present data to AHEC to share with future students in an effort to alleviate stigma

More time to spend doing office procedures, home visits (etc.):

- Reformat Primary Care physician schedules: half day dedicated to acute care (procedure based) and half day dedicated to preventative care (physicals + wellness exams)
 - Limit the need or share the burden of pre-op appointments with the surgeons involved (ex: Cataract surgery)
 - De-prioritize Urgent Care and ER visits for acute problems that can be managed by your Primary Care physician (decrease health care cost)
- 

References

Committee on the Future of Rural Health Care; Institute of Medicine. *Quality Through Collaboration: The Future of Rural Health*. Washington, DC: National Academies Press; 2005

Fodeman J, Factor P. Solutions to the primary care physician shortage. *Am J Med*. 2015 Aug;128(8):800-1. doi: 10.1016/j.amjmed.2015.02.023. Epub 2015 Mar 31. PMID: 25840033.

Gemelas JC. Post-ACA Trends in the US Primary Care Physician Shortage with Index of Relative Rurality. *J Rural Health*. 2021 Sep;37(4):700-704. doi: 10.1111/jrh.12506. Epub 2020 Aug 13. PMID: 32790225.

Greysen SR, Chen C, Mullan F. A history of medical student debt: observations and implications for the future of medical education. *Acad Med*. 2011;86(7):840-845. doi:10.1097/ACM.0b013e31821daf03.

Kozakowski SM, Becher K, Hinkle T, et al. Responses to Medical Students' Frequently Asked Questions About Family Medicine. *American Family Physician*. 2016;1(93).

Marcu MI, Kellermann AL, Hunter C, Curtis J, Rice C, Wilensky GR. Borrow or Serve? An Economic Analysis of Options for Financing a Medical School Education. *Acad Med*. 2017;XX(X):1. doi:10.1097/ACM.0000000000001572

Phillips JP, Prunuske J, Fitzpatrick L, Mavis B. The Family Medicine Attitudes Questionnaire: A Valid Instrument to Assess Student Attitudes Toward Family Medicine. *Fam Med*. 2019;51(6):493-501. <https://doi.org/10.22454/FamMed.2019.957692>.

Palanza, Kenneth Michael, "The Primary Care shortage in Vermont and Medical Student Interest in Primary Care" (2020). Family Medicine Clerkship Student Projects. 549. <https://scholarworks.uvm.edu/fmclerk/549>

Rosenblatt RA, Hart LG. Physicians and rural America. In: Ricketts TC III, ed. *Rural Health in the United States*. New York, NY: Oxford University Press; 1999:38-51



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Yes

Name: Nick Florio, MD (provided verbal consent)

Name: Cornelius Ferreria, MD (provided verbal consent)

