

Impact of a Longitudinal Community Health Elective on Medical Students: Program Review

Brandon Moritz, BS; Dale Bratzler, DO, MPH

University of Oklahoma College of Medicine, Oklahoma City, OK



Introduction

Providing adequate access to healthcare for medically underserved areas/populations (MUA/Ps) is one of the greatest challenges in public health today.¹

- MUA/Ps are defined as having too few physicians, high poverty rates, a large elderly population, and a high infant mortality rate.²

In order to address this issue, a long-term, multifaceted approach is required with buy-in from both the public and private sectors.

The OU Community Health Alliance (OUCHA) developed two longitudinal Community Health (CH) electives that allow medical students to volunteer in local MUA/Ps during the first 3 years of medical school in an effort to develop a greater understanding of MUA/Ps, cultivate an interest in Primary Care (PC) early on in training, and strengthen a desire to serve MUA/Ps long-term.

Curriculum

CH I - 2 Week Equivalent

- 8 Community Involvement Hours
- 12 Health Education Hours
- 60 Clinic Hours*
- Reflection Essay

CH II - 4 Week Equivalent

- Completion of CH I requirements
- An additional 20 Clinic Hours*

*Hour requirement reduced to accommodate for COVID-19

Community and Student Led Initiatives

- 15 free and charitable clinics in Oklahoma City partner with OUCHA to allow medical students to volunteer.
- One of these clinics is a free, student-led, interdisciplinary clinic.
- Students also volunteer in associated pharmacy dispensaries, food pantries, community centers, and more.



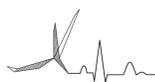
Workshops that educate students about MUA/Ps



A partnership with OU's Trauma Dept. to deliver bleed-control training



An annual 5K that benefits OUCHA partner clinics



A student organized conference about barriers in healthcare



Health fairs to educate at-risk elementary students

OUCHA also approves service opportunities hosted by organizations to fulfill credit hour criteria. For the academic year 2018-2019, OUCHA approved 112 student-led events eligible for credit hours.

Methods

Research Participants: Class of 2021 University of Oklahoma College of Medicine medical students that completed CH I or CH I & II (n=43).

Data Collection: In their 4th year of medical school, students completed a survey assessing the impact of the experience across 8 metrics using a five-point Likert Scale (Strongly Disagree to Strongly Agree). In the survey, students also reported which student led OUCHA programs they volunteered with during medical school. (Table 1)

Eight Metrics: Empathy, Impact & Transformation, Unique Education, Patient Challenges, Physician Challenges, Interest in Working with MUA/Ps in the Future, Interest in Volunteering in a Charitable Clinic in the Future, and Interest in PC. (Table 2) Students were also asked to describe their experience completing the CH electives in one word. (Figure 1)

Results

Figure 1 (Right). This "word cloud" shows the words medical students (n=31) used to describe their experience completing the CH electives. "Eye-opening" was the most common answer, followed by "Rewarding" and "Impactful".



Table 1 (Bottom left). Student involvement with OUCHA programs.

Table 2 (Bottom right). A five-point Likert Scale (Strongly Agree, Agree, Neutral, Disagree, or Strongly Disagree) was used to assess the impact of the CH electives on medical students across eight metrics. The percentages shown were calculated by combining the number of students that Strongly Agree or Agree with a statement.

Table 1	OUCHA Program	% of students that volunteered
		86%
		49%
		37%
		28%
		19%

Table 2	The experiences I had while completing the CH electives...	% Strongly Agree or Agree
	...increased my empathy for MUA/Ps	100%
	...were impactful and transformative	98%
	...were unique to CH I and II and not found elsewhere in the clinical curriculum	86%
	...increased my understanding of challenges facing MUA/Ps	95%
	...increased my understanding of challenges facing physicians working with MUA/Ps	88%
	...increased my interest in working with MUA/Ps in the future	86%
	...increased my interest in volunteering with a free clinic in the future	91%
	...increased my interest in PC	54%

Connections

In 2014, the University of California San Diego School of Medicine (UCSD SOM) evaluated the effect that volunteering in free clinics had on medical students. They found that students had...

- An increased understanding of the challenges facing individuals suffering from homelessness and underserved minority families.³
- Improved attitudes towards MUA/Ps.³ (attitudes ≈ empathy)
- An increased interest in working with MUA/Ps in the future and increased interest in PC.³

In 2017, the Sidney Kimmel Medical College and University of Central Florida College of Medicine both conducted similar studies to UCSD SOM, and their results support the findings listed above.^{4,5}

Conclusion

While there are limitations to this "program/curriculum review" and a follow-up study with a pre-survey is required, there are some noteworthy observations that can be identified for further investigation.

OUCHA's longitudinal CH electives could serve as an innovative and education-based strategy to...

- Increase or maintain medical student empathy during training.
- Increase medical student understanding of challenges facing MUA/Ps and the physicians that work with them.
- Increase medical student interest in working with MUA/Ps in the future and PC.

A reduced percentage of students reported increased interest in PC when compared to the other survey metrics. In 2021, 48% of applicants matched into PC nationally and 62% of OUCOM MS4s matched into PC.⁶

The longitudinal CH electives are unique when compared to other medical schools' curricula and have potential to serve as a model for other programs around the country.

Acknowledgments & References

A special thanks is due to the OU College of Medicine, the OUCHA student leadership team, and our community partners. Without their contributions, the program would not be what it is today.

1. Li, L. B. (1995). Practicing with the urban underserved. A qualitative analysis of motivations, incentives, and disincentives. *Archives of Family Medicine*, 4(2), 124-133. doi: 10.1001/archfam.4.2.124
 2. Medically Underserved Areas and Populations (MUA/Ps). (2016, October 19). Retrieved from https://bh.w.hrsa.gov/shortage-designation/muap
 3. Smith, S. D., Yoon, R., Johnson, M. L., Natarajan, L., & Beck, E. (2014). The effect of involvement in a student-run free clinic project on attitudes toward the underserved and interest in primary care. *Journal of health care for the poor and underserved*, 25(2), 877-889. doi: 10.1353/hpu.2014.0083
 4. Modi, A., Fascelli, M., Daitch, Z., & Hojat, M. (2017). Evaluating the Relationship Between Participation in Student-Run Free Clinics and Changes in Empathy in Medical Students. *Journal of primary care & community health*, 8(3), 122-126. doi: 10.1177/2150131916685199
 5. Tran, K., Kovalskiy, A., Desai, A., Imran, A., Ismail, R., & Hernandez, C. (2017). The Effect of Volunteering at a Student-Run Free Healthcare Clinic on Medical Students' Self-Efficacy, Comfortableness, Attitude, and Interest in Working with the Underserved Population and Interest in Primary Care. *Cureus*, 9(2), e1051. doi: 10.7759/cureus.1051
 6. Advance Data Tables: 2021 Main Residency Match. https://mknrm30yqu6wqfm.kinstacdn.com/wp-content/uploads/2021/03/Advance-Data-Tables-2021_Final.pdf