Strategies to Integrate Community Engagement in Medical Student Education
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Abstract
Engaging medical students in the community during medical education can facilitate the development of the competencies necessary to be a successful community-centered physician. Though health care is essential to health, it is a relatively weak health determinant. Improving health and achieving health equity requires broader approaches that address social, economic, and environmental factors that influence health. To successfully improve the health of the community, medical student trainees need to learn about community issues from a diverse set of community perspectives. The value of community engagement in medical education to address society’s health challenges is particularly relevant for regional medical campuses that often have missions to serve their local communities. In this article, we share 12 tips for successfully integrating community engagement into medical student education. These tips are based on the literature and the authors’ experiences developing and implementing a community-engagement scholarship program for medical students at a new regional medical campus that incorporates a community engaged scholarly project.

Introduction
All medical schools in North America are required to ensure that their medical education program provides sufficient opportunities for medical students to participate in service-learning and community service activities. Integrating community engagement with medical student learning can connect students with marginalized and underserved populations and strives to improve community health and reduce health inequities. Community engagement is reported to impact future physicians by increasing their awareness of community health needs and deepening their understanding of the perspectives of vulnerable and marginalized populations. According to the AAMC (Association of American Medical Colleges), the United States will see a shortage of up to 122,000 physicians by 2032, with rural and underserved areas experiencing this shortage more acutely. Therefore, it is essential that medical schools, particularly those with a focus on addressing physician shortages, are training physicians oriented toward their community’s needs. Thus, with a) the need for medical schools to offer activities involving community engagement, b) evidence in the literature showing the importance of community engagement in community health and medical student education, and c) growing need for physicians dedicated to understanding and providing exigencies of the community, the authors share 12 tips for successfully integrating community engagement into medical student education using a program that incorporates a community-engaged scholarly project.

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Corina Norrbom, MD; Assistant Professor Co-Director, Physician in the Community Medical College of Wisconsin – Central Wisconsin campus is known for its 3-year longitudinal integrated curriculum with a research pathway of the “Physician in the Community”. As part of this “Physician in the Community” course, students participate in a 2-year course and complete a scholarly project. As part of the project, student’s progression is tracked from

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connecting, consulting, being involved, actively collaborating, and empowering or sharing results back with the community. See Figure 1. Community Engagement Tool.

**Tip 1. Identify community concerns that impact health.**

Encourage students to explore local public health data to identify changing health trends and emerging priorities. Online local public health databases are becoming increasingly available and can be utilized to compare local with state and national data to identify health inequities and regional differences. Students can discuss and review local health department priorities and community improvement plans. Often these priorities are established in collaboration with the community and incorporate broader definitions of health, highlighting the need to address challenges such as food insecurity or access to high quality childcare in order to build a healthier community.

**Tip 2. Build relationships with diverse professionals.**

Students and faculty can look to partner with teachers, public health officers, law enforcement, nurses, and pastors. Students can attend community events and volunteer with organizations to build relationships. Making connections with a wide variety of individuals sharpens essential networking skills and will lead to a better understanding of the community and its challenges. Collaborative engagement between diverse professionals enhances meaningful partnerships and leads to insights about the system and increases collective impact. The ability of medical students to effectively build trusting relationships will be paramount to having a successful career in medicine.

**Tip 3. The project should meet the student’s goals.**

Students will be more motivated to work on a community-engaged project if it connects with their own interests and builds on their previous experiences and professional goals. Examples of student goals may include developing leadership skills, learning more about the perspectives of a particular population, or addressing an issue with personal relevance. Learning to recognize the skills and knowledge one wishes to develop is an important step in a student's professional development. Medical students should share their goals with community partners to identify mutually reinforcing activities for their engagement. Course directors can structure assignments to create opportunities for reflection and identification of student-derived personal goals.

**Tip 4. Find out and determine what works.**

Students should learn to use the scientific and grey literature to identify evidence-based practices that address the community-identified concern. This includes identifying the goals and activities of similar programs and evaluating how they fit with your community's goals. Students can also benefit from understanding public health and education theories like the socioecological model that suggests health is impacted at 5 levels by public policy, community, institutional, interpersonal, and intrapersonal factors. Once an intervention has been adopted, outcomes should be tracked to determine effectiveness in the current context since there can be important variables that differ between communities.

**Tip 5. Collaborate in project design with community partners.**

The students should discuss with community partners the metrics that are currently being tracked and determine if there are additional outcomes that should be measured. The faculty should discuss with the community partners what ethical assurances or letters of approval are needed. Community health educators, community review boards, or focus groups with the target population can assist in project design in order to maximize the likelihood that the community members will choose to engage in the project. Memorandums of understanding or a written protocol can be used to document proposed program activities. It is important that all partners have a clear understanding about how responsibilities will be divided and shared while being flexible to iterate based on outcomes.

**Tip 6. Foster equitable inclusion of community participants.**

Healthy inequities have grown out of lack of inclusion. There is an increasing need to identify strategies that
successfully engage a diverse set of participants. It is important to understand the motivations and concerns of the population and what incentives might be valued. In addition, one of the benefits to students participating in these projects is to get proximate to the problems and to different perspectives. It is important to understand relevant historical trauma and to learn about local history and existing power structures from multiple lenses.

**Tip 7. Encourage students to support each other’s efforts.**

Students can build their collaboration skills by helping to recruit additional students to participate in program activities. Faculty and community members can facilitate synergy between projects. Different students may offer different skill sets and more junior students can support sustainability while more senior students can provide near-peer mentoring. Engaging with peer projects will broaden students’ exposure to other important community concerns.

**Tip 8. Garner and share resources in an equitable manner.**

The university can provide resources to support programming through space, technology, or supplies and students can assist with grant writing or fund raising. By paying community members for their contributions rather than assuming that they will volunteer, can help support equity. Community members should be included in decisions about how these resources will be allocated. Multiple community partners can work together to identify and allocate resources and personnel.

**Tip 9. Analyze, interpret, and disseminate results back to the community.**

Medical students and community members should partner in how they interpret and disseminate data. Balance commitment, power, trust, and respect. Faculty must encourage bidirectional communication. All final products (posters, papers, talks) should be reviewed by community members and, if feasible, presented in local community forums or co-presented with community members. By disseminating the final outcomes back to the partner organizations, this increases the likelihood of the projects driving change in the community.

**Tip 10. Provide students with opportunities to reflect on their experiences.**

Students are often discouraged with the lack of “results” that may come from their community-engaged projects. Their involvement in a community project may be a small but very important part of a much larger process of the Plan-Do-Study-Act Quality Improvement Cycle. Qualitative data does not always feel as “real” as quantitative data but may play a key role in understanding why and how an intervention is working. Faculty should help students understand that personal growth often comes from engaging in the process and an understanding of what was learned from failures as well as successes. Faculty can highlight student progress along the community engagement continuum moving from unidirectional outreach to achieving successful collaboration and shared leadership (Figure 1).

**Tip 11. Develop a sustainability plan.**

To have continued community impact requires regularly fostering existing relationships and recruiting additional partners to ensure sustainability of the projects. These long-term relationships can be supported by educational experiences rather than if students participate in volunteer experiences. The long-term partnership is between the institution and community organization rather than the student and community mentor to ensure that the project is not a single occurring event.

**Tip 12. Identify how policies impact the community outcomes.**

Students should aim to understand how institutional, local, state, and national policies are affecting potential project outcomes and health equity in the community. Students should be encouraged to find opportunities to be part of critical conversations between community stakeholders and policymakers. It is important for them to learn that their advocacy as students and future advocacy as a physician may significantly impact the health of their patients and the health of the community in which they serve.

**Conclusion**
Community-based learning experiences have a positive impact on both the community and the learner. Service in response to community-identified concerns will help strengthen the relationship between the community and the medical students. Scholarly activity of medical students in collaboration with community mentors can help identify impactful policies and interventions. Student projects may also have a potential for sustainability and growth as students become practicing physicians serving in the same or similar communities. Including community engagement in medical student education gives medical students hands-on opportunities to learn about public health and to work on something they feel passionate about. Assessing community needs broadens knowledge and helps students gain a better understanding of existing health inequities and disparities in the community. Students gain a better grasp on the impact of social determinants of health and the importance of thinking beyond clinic walls to improve the health of the community. Students also develop partnership skills for addressing complex, community problems. Furthermore, taking the lead in community-based projects will help students sharpen their leadership qualities and give them an opportunity to work in a team.

**Limitations of community engagement**

Partnerships with community members may come with multiple logistic challenges in terms of scheduling. In our experience, community partners are overall very eager to collaborate with medical students. Balancing community expectations and student learning objectives can be demanding given the full medical school curriculum. Students may perceive community engagement as an additional workload if it is not well integrated.

**Can these tips actually work?**

Lastly, we would like to share the personal experience of how these tips helped one of our students in engaging in the community for his scholarly project.

**Student reflection:**

"Knowing that stable income and employment play a significant role in determining health, my community-engaged project was the development of a job skills workshop. After successfully completing the workshop, community members with a history of incarceration or substance abuse are guaranteed a job interview with a local manufacturer. The program has a hire rate of over 90% and since 2017, over 100 graduates have been given the opportunity for a stable source of income and a network of support.

By building relationships with diverse professionals from the manufacturing industry, state and federal government, and local faith communities, we were able to leverage community resources to provide training and develop a network of support for involved participants. We were challenged to find what works; often by noting what didn’t. Each new workshop cycle offered opportunities to tweak programming or find new community partners to provide optimal support to our graduates. Only through collaboration with local partners were we able to develop a sustainability plan. I am grateful for the community leaders who stepped forward to lead this program after my departure. I am honored to have been part of a community-engaged project that directly impacts the health of my community. I am proud of the project graduates, our collaborative team, and my fellow students who continue to make projects like ours a reality."

**Figure 1. Community Engagement Tool**

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