

High School Students' Perspectives: The Value of Volunteering on International Short-Term Medical Missions

Sofia Negron¹, Sara Echavarria¹, Walter Eksteen[#] and Javier Miller[#]

¹Montverde Academy, USA

[#]Advisor

ABSTRACT

Community service experiences allow you to define interests, develop career skills and interests, and enrich the student learning process with networking & mentorship experiences, meanwhile providing instant gratification while serving others. Nevertheless, finding the right opportunity as a high school student is a challenging task. More literature is needed to focus on the experiences of high school students in short-term medical missions and the benefits these experiences offer. This report describes the opportunities for high school students and the benefits of participating in a short-term medical mission, from the student perspective. The growth one earns in community service is invaluable; it enriches the volunteers' personal lives and shapes them into humble, compassionate, and well-rounded individuals. Ultimately, this study highlights the often-overlooked significance of volunteering, emphasizing the value of giving back and the profound impact of gaining experience in healthcare and understanding different socioeconomic contexts.

Introduction

Community service is our school's backbone of active learning; Montverde Academy requires students to complete at least one hundred hours of community service before graduation. Nevertheless, finding the right opportunity as a high school student is a challenging task. Volunteering is “an intentional behavior, carried out without being a professional obligation and aimed at supporting, preserving and promoting social values, without waiting for any moral or material rewards from others” [1]. Community service experiences allow you to define interests, develop career skills and interests, and enrich the student learning process with networking & mentorship experiences, meanwhile providing instant gratification while serving others. Medical associations often have community service projects as their primary agenda; therefore, we contacted the Colombo-American Medical Foundation (COAMED) based in Central Florida and asked if we could join them and volunteer for their next Short-Term Medical Mission (STMM). COAMED is a non-profit organization established in 2015 that helps and supports under-served communities by providing preventive, therapeutic, supportive, and rehabilitative healthcare services to under-served communities in Florida and overseas. We were accepted to join their Short-Term Medical Mission to San Andres and Providence Archipelago, Colombia, on March 7-17, 2024. In this experience, we shadowed physicians from several specialties, including Internal Medicine, Pediatric Medicine, Family Medicine, Neonatology, Optometry, and General Dentistry, while serving 507 patients. Our responsibilities included taking general information, completing forms, taking vitals, and providing compassionate support to mothers and fathers with multiple kids so they could be seen in different clinics. In addition to our direct hands-on experience, we used skills learned through art classes in school and embroidered 55 blankets for patients, hand-delivered by us at the hospital in San Andres. Our experience on this Missionary trip was transformative, impacted our service perspective long-term, and helped us solidify our commitment to serving.

Methodology

The World Health Organization states that the highest global disease burden falls on regions suffering from physician shortages [2]. Service is an essential aspect of society; it has been reported that between 800,000 and 1,100,000 individuals in the United States volunteered internationally, including in STMMs, each year from 2004 to 2012 [3]. As defined by Martiniuk et al. [4], an STMM is “a short trip of 1 day to 2 years by a healthcare professional to an LMIC to provide direct medical care to the population at large, or to a particular subset of the population identified by their particular health need, age group, or cultural group”. The success of these short-term medical mission trips relies on coordinating the medical mission process with the host. In our case, COAMED coordinated our STMM with the Colombian Armed Forces, Departments of Providencia & San Andres Islands, the Marine Infantry Battalion No. 11 BM11, and the Hospital Clarence Lynd Newball Memorial in San Andres Island. This highly structured partnership guaranteed the success of the mission and the safety of the healthcare personnel and students. COAMED assessed to understand the population's needs and make quality medical donations. This Archipelago of Colombia, located in the Caribbean Sea, geographically closer to central America; lacks essential healthcare services such as general pediatric medicine, Internal Medicine, Dentistry, Optometry, without even thinking about subspecialty services or Physical Therapy, Rehabilitation or medicines. This translates to an undeserved population of almost 60,000 habitants.

This STMM followed similar guidelines by Tracey, P. et al. [5]. This mission consisted of three stages:

1) Pre-departure: The COAMED organization communicated with the local Department of Health and armed forces to determine the need for the mission and plan accordingly. This organization collected medical equipment, reading glasses, toys, breastfeeding chairs for new moms, neonatal cribs, clothes, backpacks, and school supplies donated by local entities and individuals for approximately a year. COAMED created a multispecialty group based on healthcare needs to assess and treat patients. The local Colombian embassy helped to secure all the connections with local entities to facilitate and implement the mission. Each donation was secured and stored in a container shipped overseas two weeks before the STMM, assuring punctual arrival to the Islands before our visit.

As high school students, we wanted to collaborate in the pre-departure phase and create something meaningful for these patients. Our school, Montverde Academy, has over 200 classes available, including Crafts, which teach various skills, such as embroidery, knitting, ceramic pottery, etc. In our case, we used embroidery and reached out to a local small business. They provided us with their machines to embroider 55 blankets with positive messages. Once embroidered, they were packed and added to the shipping container going on the trip. These embroidered blankets were an example of a skill learned at our school and how we could impact the patients' welfare.

2) In Country: Based on previous STMM organized and executed by COAMED, this entity knows precisely how to operate a remote access clinic. To ensure the success of these clinics, strong coordination and awareness are needed. Local government was a key player, scheduling follow up appointments, in addition, local employees helped to manage patient flow. To ensure the functionality of this mission, COAMED had a multidisciplinary group that consisted of the following:

1. General Dentist and 1 Dental Assistant: General dentistry and extraction procedures performed.
2. Optometrist: Basic eye health checkup and reading glasses provided.
3. Internal Medicine Doctor: Assessment, diagnosis, treatment, and counseling about different health conditions affecting the Islanders.
4. Family Medicine Doctor: Assessment, diagnosis, and treatment of general health conditions that affect the female population.

5. Pediatric Unit: This unit, consisting of a Neonatologist and a Pediatrician, could assess, treat, and offer orientation about nutrition and general health concerns.
 6. Nurse: She assisted different clinics, offering support to the physicians and compassionate care to patients.
 7. 2 High School Students: Able to shadow every clinic and support the clinics, improving efficiency while learning essential skills such as patient intake, vitals collection, and supporting parents during the visit so they could get the most benefit out of the visit.
 8. Contractor: He repaired medical equipment on the island and improved the clinic facilities.
 9. Armed Forces: Provided transport food for the COAMED mission team and collected all the data (demographic, diagnosis, medicines prescribed) to guarantee the continuation and success of future SMMT.
 10. Four general staff members: Greeted patients, scheduled appointments, provided patient room information and directions and helped transport patients to ensure clinic efficiency.
- 3) Post-medical mission follow-up: To ensure the sustainability of these STMM, one must use the collective experiences and data to understand local population needs and further develop the following strategies. COAMED has already committed to returning in Fall 2024 with a surgical mission to cover different needs.

We as students need to leave a legacy and open the door to experiences for others at a young age. Therefore, we gathered our information and developed this article for future reference use by other high schoolers to understand that there is room for them in every stage of the mission.

Results

The student perspective

The Mayo Clinic says, “Community service offers significant health benefits, reducing stress and increasing positive, relaxed feelings by releasing dopamine. Volunteers report feeling a sense of meaning and appreciation by spending time in service to others, both given and received, which can have a stress-reducing effect. It also provides a sense of purpose, teaches valuable skills, and nurtures new and existing relationships [6].” A fundamental goal of this mission is to serve underserved remote communities with primary care needs. This multidisciplinary group of healthcare providers was able to evaluate and treat patients in 507 different encounters during our visit. We learned to plan a mission, including pre-departure, in-country, and post-medical mission follow-up. We found ways to volunteer and impact each stage of the mission trip (as described in the methodology). Guidance and mentorship were crucial in the outcome of this mission and our motivation to continue to serve rural communities locally and abroad.

When we arrived at Clarence Lynd Newball Memorial Institution, we could not help but notice the lack of air conditioning and rusty walls, indicating that the institution had not been renovated or repaired in a long time. We continued to the pediatric floor, where we began to hand-deliver the blankets, toys, and children's backpacks. The faces of the children who received the donations are impossible to forget, and right then, we knew how much of a difference we were making, no matter how small, and if we continued to contribute, we could only think how much more difference could be possible.

Volunteering in an underserved community profoundly benefits students and underserved remote communities. Through the engagement of the members of the medical mission trip, we provided critical healthcare services to the Colombian communities, which unfortunately suffer from limited healthcare access. Volunteer-

ing on this trip allowed students to gain invaluable experiences that genuinely opened their eyes to underprivileged communities and helped them realize basic needs, which we don't think twice about, and necessities that others don't have the same luxury. Doctors in Providencia, Colombia, come and go every 2-3 months through rotations, leaving the island's residents without physicians for periods at a time. They have specialized care and services that are not available locally, thus resulting in doctors flying in every few months. Patients in Providencia express thanks for the ongoing support of doctors, who view it as a luxury. However, in the United States, one never needs to wonder whether there are enough physicians. We tend to take medical professionals for granted for the services they give since they are constantly available, but this is not the situation in many nations.

During this trip, we have connected with and learned from patients through their journeys of physical and emotional struggle. We have met people from various age groups, all suffering because of the lack of medical attention and care. We have seen patients in hospitals without the medical supplies they need, kids who have cerebral palsy, and not getting the appropriate care and therapy required to prevent and slow the stiffness in the body. These experiences exposed us to different cultures and healthcare, giving us a greater understanding of global issues. The mission also allowed us to gain creative problem-solving skills in the real world due to limited healthcare resources, seeing in true light what it is to adapt one's knowledge to real-world situations, skills needed for a lifetime. Creativity and willpower were important during this journey, and equipment was often broken down or destroyed. Yet that didn't stop the doctors from doing their jobs. The dental exam chairs were broken, but that didn't stop them from helping patients in need. Instead, they used recliner chairs used by the armed forces in their camps. Students will learn adaptation, resilience, and the importance of teamwork through navigating challenges and develop a newfound appreciation of service and a heightened awareness of the actual global need for community service. Learning the value of service creates a sense of empathy and social responsibility. The growth one earns in community service is invaluable; it enriches the volunteers' personal lives and shapes them into humble, compassionate, and well-rounded individuals. Ultimately, it brings the underserved significance of volunteering to light, giving value to giving back and a powerful impact of experimenting in healthcare and a different socioeconomic perspective.

Conclusion

Volunteer activities increase the gratification process and are well known to improve engagement in global health clinical training and the desire to serve underserved populations [7]. More information about the benefits of medical shadowing and volunteering for a high school student needs to be provided. High school students will benefit from early exposure to medical shadowing experiences with vulnerable populations, especially in remote locations with little or no access to regular healthcare services. STMM provides the right environment not only to develop clinical skills but also to understand health disparities. Future studies should evaluate ways STMM in high school might benefit career decision-making in healthcare, especially working with underserved populations. Early exposure to the healthcare field on an STMM will help cover the growing demand for physicians in rural or remote communities. More opportunities should be available to include high school students on short-term medical mission trips.

Acknowledgments

I would like to thank my advisor for the valuable insight provided to me on this topic.

References

1. Eley, D. (2003). Perceptions of and reflections on volunteering: The impact of community service on citizenship in students. *Voluntary Action: The Journal of the Institute for Volunteering Research*, 5(3), 27-46.
2. Sykes, K. J. (2014). Short-term medical service trips: A systematic review of the evidence. *American Journal of Public Health, 104*(7), e38-e48. <https://doi.org/10.2105/AJPH.2014.301983>
3. Lough, B. (2013). International volunteering from the United States between 2004 and 2012. [Research Report].
4. Martiniuk, A. L. C., Manouchehrian, M., Negin, J. A., & Zwi, A. B. (2012). Brain gains: A literature review of medical missions to low and middle-income countries. *BMC Health Services Research, 12*(134). <http://www.biomedcentral.com/1472-6963/12/134>
5. Tracey, P., Rajaratnam, E., Varughese, J., et al. (2022). Guidelines for short-term medical missions: Perspectives from host countries. *Global Health, 18*(19). <https://doi.org/10.1186/s12992-022-00815-7>
6. Mayo Clinic Health System. (n.d.). 3 health benefits of volunteering. Retrieved from <https://www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/3-health-benefits-of-volunteering>
7. Rogers, A. J. G. (2020). Medical student volunteerism and interest in working with underserved and vulnerable populations. *BMC Medical Education, 20*(133). <https://doi.org/10.1186/s12909-020-02048-x>