

ASF Final Report
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Background

Visual health is a critical yet often overlooked component of overall well-being. Many ocular conditions, including refractive errors, diabetic retinopathy, and glaucoma, are preventable or manageable with early detection; however, access to eye care remains limited in underserved communities. Barriers such as cost, lack of awareness, and limited access to providers contribute to disparities in visual outcomes. These gaps are particularly evident among low-income and minority populations, where routine eye care is often deprioritized.

In addition to chronic eye disease, preventable eye injuries, particularly those related to sports and recreational activities, represent an important yet under-addressed public health concern. Children and adolescents are at increased risk for ocular trauma, much of which can be mitigated through proper education and protective equipment. Despite this, awareness of sports-related eye safety remains low, especially in underserved school settings where access to protective gear and health education may be limited.

This project was developed to address these disparities through community-based education and vision screening, with a focus on both preventative eye care and eye safety. Drawing on my background in public health, I aimed to create an intervention that combined education with practical screening to improve knowledge, reduce risk of injury, and promote long-term engagement with eye care.



Target Population

This project focused on two primary populations: patients at the MAPI clinic and students at Hope Academy. Both populations represent underserved communities with limited access to consistent healthcare services.

At the MAPI clinic, I worked with adult patients, many of whom faced socioeconomic barriers to care. At Hope Academy, I engaged with younger students, recognizing the importance of early education in shaping lifelong health behaviors. These groups were selected due to their increased risk for unmet visual health needs and the potential for meaningful impact through targeted intervention.

Project Goals

The primary goals of this project were to:

- Increase awareness of eye health and preventative care
- Provide basic vision screenings to identify potential issues
- Educate individuals on eye safety and disease prevention
- Encourage follow-up care when abnormalities were identified
- Foster trust and engagement within the community

Approach and Activities

To achieve the goals of this project, I implemented a multifaceted approach that combined direct patient interaction, structured health education, and community engagement. The intervention was grounded in public health principles, with an emphasis on prevention, accessibility, and culturally appropriate education.

At the MAPI clinic, I participated in recurring clinic sessions, which allowed me to engage with patients over time and build rapport. During these visits, I conducted basic vision screenings and provided individualized education on eye health. These discussions focused on common ocular conditions, the importance of routine eye exams, and the relationship between vision and systemic diseases such as diabetes and hypertension. Many patients had limited prior exposure to eye care education, making these one-on-one interactions an important opportunity to address misconceptions, answer questions, and encourage appropriate follow-up care.

In addition to clinical engagement, a significant component of the project involved delivering structured health education sessions at Hope Academy. These sessions were designed using interactive learning principles to improve engagement and retention among younger students. Rather than relying solely on lecture-based teaching, I incorporated active learning strategies, including game-based formats such as an “Eye Safety Jeopardy” activity. This approach encouraged participation and allowed students to apply knowledge in an engaging and supportive environment.

The educational content emphasized foundational eye health concepts, including the importance of protective eyewear during sports and recreational activities, injury prevention strategies, and general eye care habits. Given the increased risk of ocular injury in children, particularly in school and sports settings, these lessons focused on practical, actionable behaviors that students could incorporate into their daily lives.



To further enhance engagement, I incorporated elements of situational and team-based activities (SVT-style interactions), which promoted hand-eye coordination, quick decision-making, and peer collaboration. These activities reinforced key concepts related to vision and eye safety while maintaining an interactive and dynamic learning environment. By integrating movement and teamwork into the sessions, the material became more memorable and accessible for students.

Throughout the project, I adapted my approach based on the needs and responsiveness of each setting. In the clinic, education was tailored to individual patients and their specific health concerns. At Hope Academy, sessions were adjusted to accommodate different age groups and levels of engagement. This flexibility allowed the intervention to remain effective across diverse populations while maintaining a consistent focus on preventative eye care and education.

Challenges and Adaptations

Several challenges arose throughout the course of the project, particularly related to coordination and communication with community partners. At Hope Academy, a change in administration created disruptions in scheduling and continuity. Planned sessions were occasionally missed due to miscommunication or lack of awareness of previously arranged visits. This made it difficult to maintain a consistent presence and required repeated outreach to reestablish connections and confirm logistics.

In addition to administrative turnover, other logistical barriers included coordinating with multiple stakeholders, aligning schedules with school and clinic operations, and adapting to last-minute changes. These challenges were compounded by the demands of medical school,

requiring careful time management and flexibility. At times, the unpredictability of scheduling limited the ability to deliver planned educational sessions, particularly in the school setting.

In response, I adapted by increasing communication efforts, confirming schedules more proactively, and remaining flexible with programming. I also shifted greater focus toward the MAPI clinic, where the structure allowed for more reliable patient engagement. This adjustment ensured that the core goals of the project, education and screening, continued to be met despite external challenges.

These experiences highlighted the importance of adaptability, persistence, and strong communication in community-based work. They also underscored the need for clear organizational structures and consistent points of contact when implementing interventions in community settings.

Accomplishments

Throughout the fellowship, I was able to:

- Conduct multiple vision screenings at the MAPI clinic
- Provide individualized education to patients regarding eye health
- Develop and implement interactive educational materials for students
- Establish a consistent presence within a community clinic setting
- Build meaningful connections with both patients and students

These accomplishments reflect both the direct impact of the project and the relationships formed within the community.

Impact and Evaluation

This project demonstrated that targeted, community-based interventions can meaningfully improve awareness and engagement in eye health, even within a relatively short timeframe. At the MAPI clinic, patients were consistently receptive to vision screenings and education. Many expressed that they had not previously received information about eye health, particularly regarding the connection between vision and systemic conditions such as diabetes and hypertension. These conversations often prompted patients to ask follow-up questions and consider seeking formal eye care, suggesting increased awareness and motivation to engage in preventative practices.

The individualized nature of these interactions allowed for tailored education, which was particularly impactful in addressing misconceptions and reinforcing the importance of routine eye exams. While long-term follow-up data was not formally collected, the immediate patient response and level of engagement indicated that these interventions were both relevant and well-received.

At Hope Academy, the use of interactive and activity-based teaching methods contributed to strong student engagement. Game-based learning, including the “Eye Safety Jeopardy” activity and SVT-style exercises, encouraged participation and helped reinforce key concepts in a memorable way. Students were able to identify risk factors for eye injury, articulate the importance of protective behaviors, and apply this knowledge in interactive settings. These sessions highlighted the effectiveness of incorporating movement, teamwork, and active learning into health education, particularly for younger populations.

From a broader public health perspective, this project underscored the importance of delivering education in accessible, community-centered settings. By meeting individuals in environments where they already receive care or education, barriers to engagement were reduced. Additionally, the integration of vision health into conversations about overall wellness helped reinforce the role of eye care as an essential component of preventative medicine.

Although the scope of the project limited the ability to measure long-term outcomes, the observed increases in awareness, engagement, and willingness to discuss eye health suggest a positive impact. This experience highlights the value of combining screening with education and supports the continued implementation of similar community-based interventions to address disparities in visual health.

Sustainability and Reflection

This experience highlighted both the impact and the challenges of implementing community-based health initiatives. While the fellowship provided a structured opportunity to develop and carry out this project, it also reinforced my desire to continue this work beyond its formal conclusion. Through my time at the MAPI clinic, I developed meaningful relationships with patients and staff, which created a foundation for ongoing involvement. I hope to remain engaged with the clinic and continue expanding opportunities for vision screening and eye health education as I progress in my medical training.

Working with underserved populations deepened my understanding of the systemic barriers that contribute to disparities in care. Many of the patients I encountered had limited access to routine eye exams and little prior exposure to preventative eye health education. These

interactions reinforced the importance of meeting patients where they are and providing care that is both accessible and culturally responsive.

At the same time, this project was not without its challenges. Difficulties with scheduling and communication, particularly at Hope Academy following changes in administration, required adaptability and persistence. Balancing these logistical barriers with the demands of medical school was at times frustrating, but it ultimately strengthened my ability to remain flexible and solution-oriented. It also emphasized that sustainable community work requires strong partnerships, clear communication, and consistent follow-through.

Despite these challenges, I found this experience to be deeply meaningful. Engaging directly with patients and students allowed me to see the immediate impact of education and reinforced the value of preventative care. It also solidified my interest in ophthalmology, not only as a clinical field but as a platform for advocacy and public health engagement. I am motivated to continue incorporating these principles into my future career and to build on this work in a way that promotes long-term, sustainable improvements in vision health.

