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Perspective

The Time for Specialty Care Collaboration Is Now: How the Consortium of Student-Led Eye Clinics Makes the Case

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Abstract

The Consortium of Student Led Eye Clinics (CSLEC) was founded in 2021 as a part of the Editorial Fellowship offered by the Journal of Student Run Free Clinics (JSRC), to increase collaboration between vision screening programs in the United States. So far, the CSLEC has recruited over a dozen programs, initiating a mentorship process to pair new organizations with long-established clinics. The CSLEC has also worked to generate bi-monthly workshops highlighting different operational strategies and insights from member institutions. With a multi-institution research team, a comprehensive survey has been an ongoing priority to assess baseline characteristics of vision screening programs, including from non-CSLEC member institutions. Ultimately, to further optimize and standardize operations across vision screening programs, the CSLEC seeks to incorporate the expertise of all member institutions to integrate consensus-based decision making to serve as a legitimate source of access to eye care, ultimately to identify and treat vision-threatening illness in populations without stable access.

Introduction

Vision screening services typically include an anterior segment exam, dilated fundus exam, and refractive error screening, typically in the outpatient ophthalmology or optometry setting. In primary care settings, direct ophthalmoscopy can also be used. The goals of vision screening services are to identify early disease in asymptomatic phases, in contexts of monitoring for diabetic retinopathy or early glaucoma for example. Moreover, robust definitive care is required following a vision screening event, especially when patients must be referred for surgical intervention or detailed neurological workups. Additionally, another important role for vision screening programs is refractive error correction through glasses and/or contacts. In this paper, we will describe the importance of vision screening, population health reasons for the underutilization of routine care, the role of student led free vision screening programs as a bridge, and the role of the Consortium of Student Led Eye Clinics (CSLEC) in creating an infrastructure needed for a comprehensive network.

The Importance of Vision Care and Associated Barriers

Routine vision screenings are recommended at different intervals in pediatric and adult populations by the American Academy of Ophthalmology.[1] With the increasing prevalence of diabetes and hypertension in the general population, identifying vision threatening sequelae of these systemic diseases is imperative.[2] Eyesight has major quality of life implications across several dimensions, including economic sustainability, educational attainment, and psychological well-being.[3] Further, in one national survey,[2]

nearly half of the participants indicated a significant fear of vision loss. Further, vision loss has been associated with anxiety, depression, and dementia; reduced physical activity and increased cardiovascular co-morbidity, and increased all-cause mortality.[3] Therefore, timely and regular utilization vision care services are critical for patient well-being and overall health.

Despite the importance of vision health, however, there are a number of factors that contribute towards the underutilization of vision screening services. For example, a review of literature highlights that compared to those with insurance, a significantly smaller proportion of uninsured individuals have been shown to receive a dilated exam.[1] At the same time, even for insured individuals, such as Medicare recipients, the separation of optional vision coverage has been associated with decreased use of vision care services, especially in patients with decreased socioeconomic status.[4] Further, even temporary gaps in insurance status have been shown to lead to underutilization of vision care services, as shown in one study that considered gaps over 12 months in Ohio.[5]

Patients that were offered vision coverage under Medicaid, for example, were shown to utilize vision services more often than those who did not receive these benefits.[6] Apart from uninsured status, unemployment is another predictive risk factor for not utilizing vision care.[1] Thus, insurance status, both general and optional vision plans, and employment, which often serves as a prerequisite for health insurance, exist as formidable obstacles against vision care utilization. In addition, other variables that attenuate vision care utilization include African American race, Hispanic or Latino ethnicity, behavior and cultural barriers and immigration status.[1]

Current Role of Student Run Free Clinics as Bridges for Unmet Vision Care Needs and Clinical Ophthalmic Medical Student Education

Student-run free clinics (SRFCs) have grown to become an important safety net for individuals who are uninsured, undocumented, and/or in significant medical debt in the United States.[6,7] Previously, Okaka et al. reported 23 SRFC-affiliated ophthalmology clinics, that offer variable ranges of service.[8] The most common pathologies identified included diabetic retinopathy and refractive error. There were significant limitations in the scope of current practices, including culturally sensitive volunteer training, sufficient regular faculty staffing, and connections to ensure longitudinal, definitive ophthalmologic follow-up.

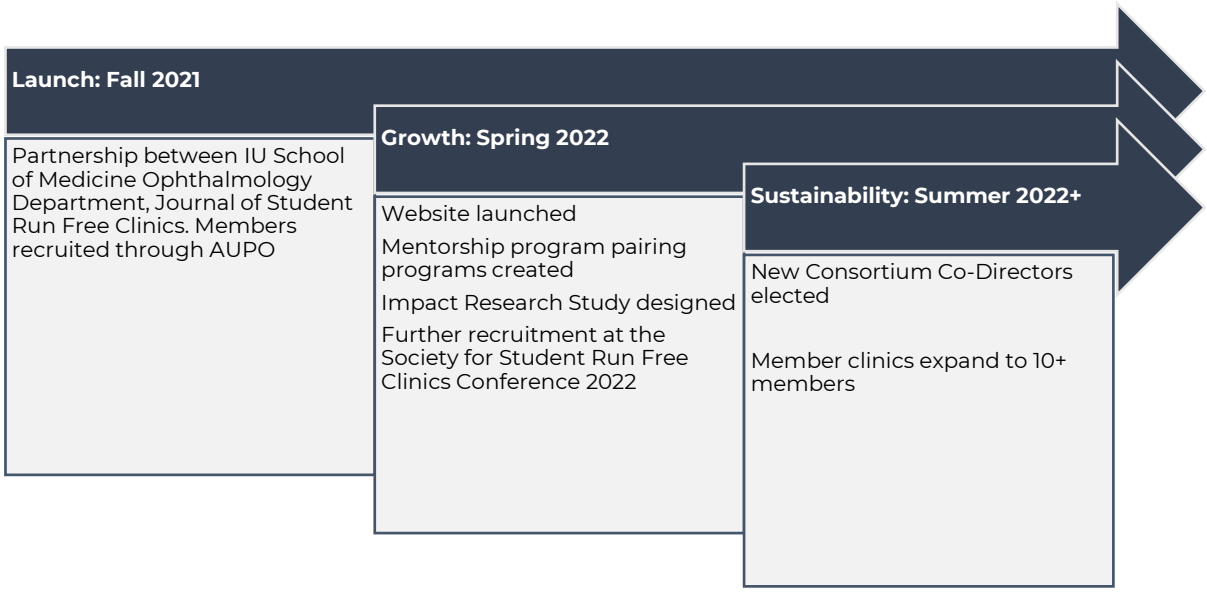
There has not previously been a forum for vision screening focused SRFCs to grapple with the education and patient care aspects of their clinics and ensure high-quality medical student volunteer training for vision screening services. In recent years, there has been a transition of ophthalmic medical student education to be during the preclinical years and play a smaller role in the overall curriculum.[9] Through the extracurricular opportunity of SRFCs, there is a high obligation to increase clinical knowledge and experience for future physicians while providing sufficient oversight in training and education. There are ethical obligations of quality and discussing the learning that takes place in these clinics related to underserved patient care with trainees in a culturally sensitive manner that must be met for these clinics to function appropriately. The benefits of vision screening SRFCs must not be limited to medical education. There are gaps that exist for SRFC-affiliated ophthalmology clinics in providing quality eye care training, oversight, and follow-up care that collaborative sharing of best practices and challenges could help address.

Collaborative Model to Strengthen the SRFC Safety Net

To strengthen the existing patchwork of various student led vision screening programs, the Consortium of Student Led Eye Clinics (CSLEC), was founded in late 2021 (Figure 1). This effort was a joint venture between leaders of the only national journal focused on the impact of SRFCs, Journal of Student-Run Free Clinics, and an interdisciplinary student-run vision screening clinic in the Near East Side of Indianapolis supported by the Indiana University School of Medicine's Department of Ophthalmology, the Indiana University Student Outreach Clinic (IUSOC) Eye Clinic.[10]

To our knowledge, the Consortium of Student-

Figure 1. A simplified timeline of the CSLEC depicts growth of the organization since original launch in September 2021



CSLEC: CSLEC: Consortium of Student Led Eye Clinics; IU: Indiana University; AUPO: Association of University Professors of Ophthalmology.

Led Eye Clinics (CSLEC) is the first attempt at cataloguing the heterogeneous nature of student-led vision screening programs to ultimately define the extent to which these programs function collectively as a safety net for vision care in the United States for populations that under-utilize vision screening services. In response to the local conditions of each community, vision screening clinics have innovated to address certain challenges, and continue to brainstorm to overcome others. The CSLEC is an important step to incrementally standardize the efforts of distinct vision screening programs, to address community-specific needs nationwide.

Thus far, the CSLEC has focused its efforts on recruiting institution members, creating infrastructure for knowledge-sharing, establishing a research cohort, and forming a mentorship program between clinic leaders based on their individual characteristics and needs. Member clinics were recruited through the specialty academic organization platform of the Association of University Professors of Ophthalmology (AUPO) and word-of-mouth communication. Figure 2 shows a comprehensive listing of the aspects of CSLEC programs. To date, there is not yet representation

Figure 2. The programs offered by the CSLEC fall under the categories of Research, Educational Workshops, and formal and informal Collaboration

Research	Educational Workshop	Collaboration
· Impact Study: identify collective services offered by student run eye programs and survey operational strategies · Consortium Model to bridge gap between primary and specialty care	· Grant writing · Clinic workflow, triage, and Quality Improvement (QI) · Volunteer training and recruitment · Expanding eye care service delivery	· Slack* discussion platform · Society for Student-Run Free Clinic (SSRFC) Conference · Mentorship program · Content building

**Slack internal group discussion (2023, version 4.34, Slack Technologies, LLC, San Francisco, California.*
CSLEC: Consortium of Student Led Eye Clinics.

from programs affiliated with optometry schools; further recruitment strategies will be required to integrate these participants as members of the

organization. Given the initial dissemination through the AUPO, it is possible that this organization has not been well publicized to this cohort.

By hosting meetings on a bi-monthly basis, the CSLEC has given clinics an opportunity to present their operations and services, while also commenting on strengths and areas of growth. bimonthly peer-taught workshops, with topics generated by member institutions, primarily addressing areas of desired growth from clinics that have already been established in this area or showcasing innovative approaches to collective obstacles. Examples of programs include the implementation of a diabetic retinopathy screening program with telemedicine, development of a community needs assessment for funding, and utilization of written patient education materials for non-English languages. Besides workshops, the CSLEC has created a mentorship program that pairs an experienced clinic in a particular area with a clinic seeking expertise in that same area to enable student, resident, and faculty-level collaboration. Thus far, mentorship matches have involved a meeting between student and faculty leaders of the respective institutions, with limited facilitation from CSLEC leadership.

The CSLEC is actively encouraging resource sharing between clinics, to replicate protocols between clinics and enhance clinic flow efficiency to allow more time directed towards patient care and service learning. This of course requires CSLEC members to collectively decide on priorities to address and relies on all members to contribute the knowledge that they have acquired in their various roles in the clinic. Most importantly, the CSLEC hopes to offer opportunities for parties interested in starting vision screening programs and emerging clinics to interact with experienced sites in both formal and informal settings, so that more populations can have access to this existing safety net.

In addition, the CSLEC formed a research team, composed of students and faculty from member institutions. One major research question considered by the team has been focusing on evaluating the impact of vision screening programs nationally and to describe the operational models of clinics. The goal of this ongoing work is to offer recommendations on areas of improvement for vision screening programs and offer a framework for the further development of specific taskforces to expand to include the leadership and expertise from all participants.

Future Directions

The CSLEC is a novel collaboration of student-led, community vision screening programs that to date, include allopathic and osteopathic institutions. Further recruitment of Optometry programs would be helpful for the integration of both ophthalmology and optometry disciplines in offering vision care services. Since there is a high degree of heterogeneity between screening clinics, it is important to work towards standardization in the types of services offered, and support clinics through all stages of development. Further work to evaluate the impact of these programs is also necessary to consider areas of strength and weakness of these institutions; individuals underutilize vision care services and require quality care. Advocating for equitable vision care is imperative, and at the national level, can be a goal for the CSLEC as further traction builds among member institutions and the true community impact is assessed.

Of course, this model has implications beyond vision care. Across the country, individual SRFCs have been leading additional initiatives in dermatology,[11] orthopedics/physical and rehabilitation medicine/physical therapy,[12] psychiatry,[13] surgery,[14] and women's health[15] in order to expand specialty care access to underserved populations. With the mentorship and supervision of faculty and residents from each of these respective departments, student learners perform assessments for common pathologies in each specialty area and offer screening services. While the operational concerns of individual specialty clinics are likely to vary significantly due to disciplinary differences, the lack of equitable access to primary- and specialty-care continues to place the onus on student-run free programs to offer healthcare services. Whereas individual institutions may lack the time and/or resources to begin or improve clinics. collaborative efforts can create a culture of resource and knowledge-sharing.

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Disclosures

The authors have no conflicts of interest to disclose.

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