HEAL-OC: Understanding Approaches to Promote COVID-19 Health Literacy and Health Equity by Assessing Four Community Health Centers

Introduction
With the increasing racial and ethnic diversity in the U.S., healthcare providers and others responsible for the delivery of medical services must navigate interacting with patients from different cultural and linguistic backgrounds. Since culture and language play an integral role in how treatment and resources are given and received, healthcare organizations need to adapt new methods that are conscious of the needs of diverse patients (National Standards, 2001).

Around 8.5% of the U.S. population are identified as having “Limited English Proficiency” (LEP), or the ability to speak English at a level of “less than very well” (Herzberg et al., 2022). Patients with LEP often experience numerous healthcare inequities as a result of language barriers disrupting effective communication between healthcare providers and patients, leading to inadequate care and dissatisfaction with the care received (Pandey et al., 2021). Patients with LEP also face delays to available healthcare services and interferences with building a strong relationship with their healthcare providers. As a result of reduced health literacy due to these language barriers, patients with LEP often exhibit low treatment adherence and bypass preventive and screening services, postponing timely care.

The implications of limited access to healthcare have far-reaching consequences in furthering inequality from racism and low socioeconomic status. Because of the lack of available resources to overcome language barriers in our healthcare system, underserved minority and LEP populations have historically been impacted by disasters and public health emergencies the most. These existing disparities have been exposed and exacerbated over the course of the COVID-19 pandemic as hospitals faced unprecedented strain from the shortage of supplies and labor to address a global crisis. Latino, Asian Americans and Pacific Islanders (AAPI), and other underrepresented minorities have experienced increased incidence, hospitalization, and deaths due to COVID-19 (Golden et al., 2021). Providing culturally and linguistically appropriate services in the form of vaccine and antiviral education, infection control, social distancing, and other improvements to increase health literacy is one solution to ensure improved health outcomes for all.

The National Standards for Culturally and Linguistically Appropriate Services (National CLAS Standards) were developed by the U.S. Department of Health and Human Services to offer a guideline for the employment of effective language interpretative methods during medical consultation to establish high-quality and accessible care (National Standards, 2001). It is unknown how many of the fourteen National CLAS Standards are currently being met, especially in the aftermath of the pandemic.

Project Context
In partnership with the City of Santa Ana, the Coalition of Orange County Community Health Centers and three other nonprofit organizations, the UCI Program in Public Health and School of Medicine are participating in the federally funded Health Equity and Literacy in OC (HEAL-OC) Initiative. The central goal of HEAL-OC is to examine disparities in health literacy that may have contributed to inequities in COVID-19 outcomes. A major objective within this goal is to
work with four minority-serving community health centers to identify which of the National CLAS standards are being implemented and to subsequently work to fill in remaining gaps. My research mentors are the site PIs for a subaward to UCI to conduct the evaluation of the entire HEAL-OC Initiative. Under the HEAL-OC grant, they are evaluating compliance with the National CLAS Standards through examination of policy documents and social media communication from the community health centers, and surveying their patients about the quality of their communication with the clinic staff.

Building on this, they have invited me to study the physical environment of the four health centers to determine how patients’ health literacy can be promoted, or impeded, through features in the physical space of a clinic.

**Study Hypotheses**

For our collaborative student research project, we hypothesize that:

**H1:** Clinics with policies that most closely adhere to the National CLAS standards will include more health literacy-promoting elements in their physical space.

**H2:** Clinics with more health-literacy promoting elements in their physical space will have more positive patient ratings of quality of communication with the clinic.

**Methods**

My project as part of the lab is focused on reducing gaps in COVID-19 inequities and improving overall health literacy in high social vulnerability index areas compared to the rest of Orange County. In this project, we will work with nonprofit organizations and four community health centers to improve structural and socioeconomic issues that impact COVID-19 outcomes and vaccination hesitancy. This will be achieved by working with the community health centers and patients, identifying the challenges of the community, providing information that is understandable to all community members, and designing solutions for individuals receiving services to improve health outcomes. In addition, we will also analyze the effectiveness of our efforts in order to improve health literacy and health outcomes and create equal access to all services necessary.

To accomplish this, I am conducting literature review to help develop a checklist of elements in a clinic’s physical space that may promote linguistically and culturally appropriate COVID-19 education and resources to Latino and AAPI residents in the targeted communities. Our goal is to improve COVID-19 testing and vaccination access, predominately in Santa Ana and surrounding areas as compared to the rest of the county. These efforts will allow us to assess broader health outcomes and provide health information to make decisions that may lead to improving the healthcare system as a whole beyond COVID-19-related issues.

Prior to the funding period the researchers in the study team established an Exempt self-determination. This included creating a checklist for content analysis of social media posts to deliver linguistically and culturally appropriate COVID-19 education and resources to targeted communities online. To ensure that our message is spread broadly in person as well, we will provide this information at community health centers. These measures are to prevent individuals who are less likely to have access to the internet from being overlooked, such as the elderly or
individuals with disabilities.

This summer, I will conduct site visits at the four health centers to assess how the National CLAS policies translate into health literacy-promoting elements in the physical environment. I will use a second checklist to assess these elements in the clinics. The checklist includes seven elements that exemplify the best model to deliver linguistically and culturally appropriate COVID-19 education and other resources at the community health centers.

Checklist of health literacy-promoting elements at community health centers

(1) The presence of **visual signifiers of diverse culture and language** at the community health center to promote inclusivity and allow patients to feel more comfortable and heard (i.e. signage available in multiple languages, name tags indicating if staff speaks another language, decoration acknowledging specific cultural holidays)

(2) **Linguistically and culturally appropriate COVID-19 educational resources posted in waiting rooms and exam rooms** (i.e. posters, tables, flyers, relevant videos playing in the waiting room)

(3) **Linguistically and culturally appropriate COVID-19 education resources available to be given out or used by providers and staff** during standard 1:1 provider-patient visits with evidence that this information is routinely and systematically being given out (i.e. paper handouts, electronic medical record “Smart Phrases” to add to After Visit Summary printed information given to patients at end of their visit, digitally available integrative resources)

(4) An established **process for communicating about and referring patients to the above resources** with the staff, providers, and community health centers aware of and participating in such referrals and communication to patients

(5) A systematic plan for **promotion, encouragement, and incentives for patients to receive available resources** to them

(6) Evidence that the clinic **attempts to identify and address needs related to health literacy** (i.e. surveys, conflict and grievance resolution processes to address needs, availability of resource information related to community resources or staff trained to help connect patients with such resources)

(7) **Leadership engagement** with designated administrative and clinical leaders playing an active role in ensuring that these areas are being fulfilled beyond the conclusion of the project

To finalize this checklist, I am working with the PIs and the lab to include specific points delegated to each category and weight of each category to establish a quantitative scoring system that each community health center can be assessed on. This will allow for data to be collected to track improvements over time.

During the summer, I will conduct site visits to all four community health centers (Southland Integrated Services, Families Together of Orange County, Families Matter Community Health Center, Share Our Selves [SOS]) to meet with staff to determine accurate and reliable demographic data to plan and implement services. This will allow us to fulfill the checklist in a way that meets the needs of each individual community health center. Finally, I will conduct
interviews with community health patients to hear their stories and receive feedback in order to monitor and evaluate the impact of on health equity and outcomes and to inform service delivery. Using these results, at the end of the project, I will analyze the collected data to determine the outcome of the project and plan future projects.

Project Timeline

| Spring 2022 | - Coordinate with my faculty mentors to finalize the site visit checklist.  
- Exempt self-determination is complete.  
- Permission from the Coalition to conduct site visits at the four health centers has been obtained.  
- Patient surveys on communication are beginning in the clinics I will be helping to collect and summarize the data from these surveys. |
| Summer Week 1-6 | - Conduct site visits at the four community health centers and conduct field observations and speak with staff and patients to complete the checklist.  
- Patient survey collection will be complete.  
- Participate in the Summer Program research methods workshops and journal club. |
| Summer Week 7-10 | - Analyze field observation data. Determine areas of need in the community health centers and implement changes.  
- Prepare a summer project report to share with the partner health centers.  
- Draft a research abstract to be submitted to the UROP Symposium and to a regional or national conference.  
- Propose a new research question to develop in Fall for a UROP Fall Proposal. |
| Fall 2023 | - Finalize abstract and submit to a regional or national conference.  
- Develop and submit a Fall UROP proposal. |
| Winter and Spring 2023 | - Conduct a Fall UROP project with other students in the lab.  
- Prepare for the UROP Symposium. |

Project Budget

| SURP Student Stipend: $3000 | Funds requested to support the applicant’s time and living expenses to be able to complete the summer research. |

References
