Development of novel electronic record system to facilitate addressing social determinants of health

**BACKGROUND**
Healthcare goes beyond what happens at the clinic or hospital. The Social Determinants of Health (SDoH) play a vital role, to the extent that it has been said “Your zip code is more important than your genetic code”\(^1\). For equitable distribution of resources and to assess and address the SDoH needs in the population, the COPE project was initiated.

**SOCIAL DETERMINANTS OF HEALTH (SDoH)**

To evaluate and track the progress on SDoH needs, commercial Electronic Medical Record systems and community-based documentation systems have limitations like exclusive focus on medical needs, inability to track client goals and progress with respect to SDoH needs, lack of a database for community resources, limited customization for specific project needs.

Therefore, the **COPE DATABASE** was created as an electronic record system as a resource for Community Health Workers (CHWs) and Local Health Equity Action Teams (LHEATs) to engage community members and organizations across 20 counties in Kansas, track client individual and collective progress, and for evaluation of program objectives and goals achieved.

**METHODS**

The team used the principles of human-centered design (HCD) to develop the **COPE DATABASE** to support the varied needs of the COPE project and serve as a data tracking, quality improvement, and evaluation platform. The HCD approach leverages active involvement of users, iterative development, and multidisciplinary team design. We assessed the documentation needs of the community health workers (CHWs) at the ground level and developed and refined features tailored to those needs. Development started on a local environment deployed to the cloud, and after attaining targeted functionality, and adding industry-standard network isolation, data encryption and access control, it was deployed on the production environment for use under the project.

The COPE Database development process spanned **5 months**, and in May 2022 went live for community-based piloting among COPE CHWs. The development involved **613 cumulative working hours** of the engineering team in addition to approximately **150 person-hours in active discussions** with the COPE team. At the time of launch, the database had **32 active users in 20 counties**, with flexibility to add more as the project progresses.

The COPE database was effectively able to track partnerships developed in the community further identified by organization, contact information, location, and type of services offered. It also allows for tracking events in the community organized by the COPE team. For client interactions, the system organizes client demographics, insurance status, and SDoH needs assessments. Based on client goals and care plans assessed by CHWs, protocols were outlined to assist clients for each needed service identified through the assessment. These **time-bound goals** with the resources provided by the CHW were trackable in database and followed up on until completion.

**OUTCOME**

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**WORTHY OF NOTE**

**COPE Presented at the 2022 Kansas Governor’s Public Health Conference**

**Beloit Call**
Mitchell County included in KDHE COPE $13 million grant usage

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**COMMUNITIES ORGANIZING TO PROMOTE EQUITY**

**COPE**

Healthcare provider

**Medical**

**Education**

**Support**

**Community**

**Technology**

**Environment**

**Action**