# Mobile Health and Wellness Program (MHWP)
# Researcher API & Tablet Application for Data Insights

**Team members:** Edson Decker, Alex Davidkov, Haley Vivian, William Meredith | **Faculty adviser:** John Leonard | **Sponsor:** Lana Sargent | **Mentor:** Joao Soares

## Motivation

The goal of this project is to develop a solution that enables health researchers to quickly and accurately identify potential study participants based on aggregated health data. This project is intended to streamline cohort discovery and enable better analysis of participant information stored in the REDCap system.

## Background

The Mobile Health and Wellness Program (MHWP) provides health assessments to underserved communities. Data is collected via the REDCap system, and researchers need a streamlined way to identify specific cohorts based on health conditions and demographics. This project focuses on creating an application that integrates data from REDCap and assists researchers in finding the right participants for studies.

## Datasets

- Social Determinants of Health (SDOH) Screening Data
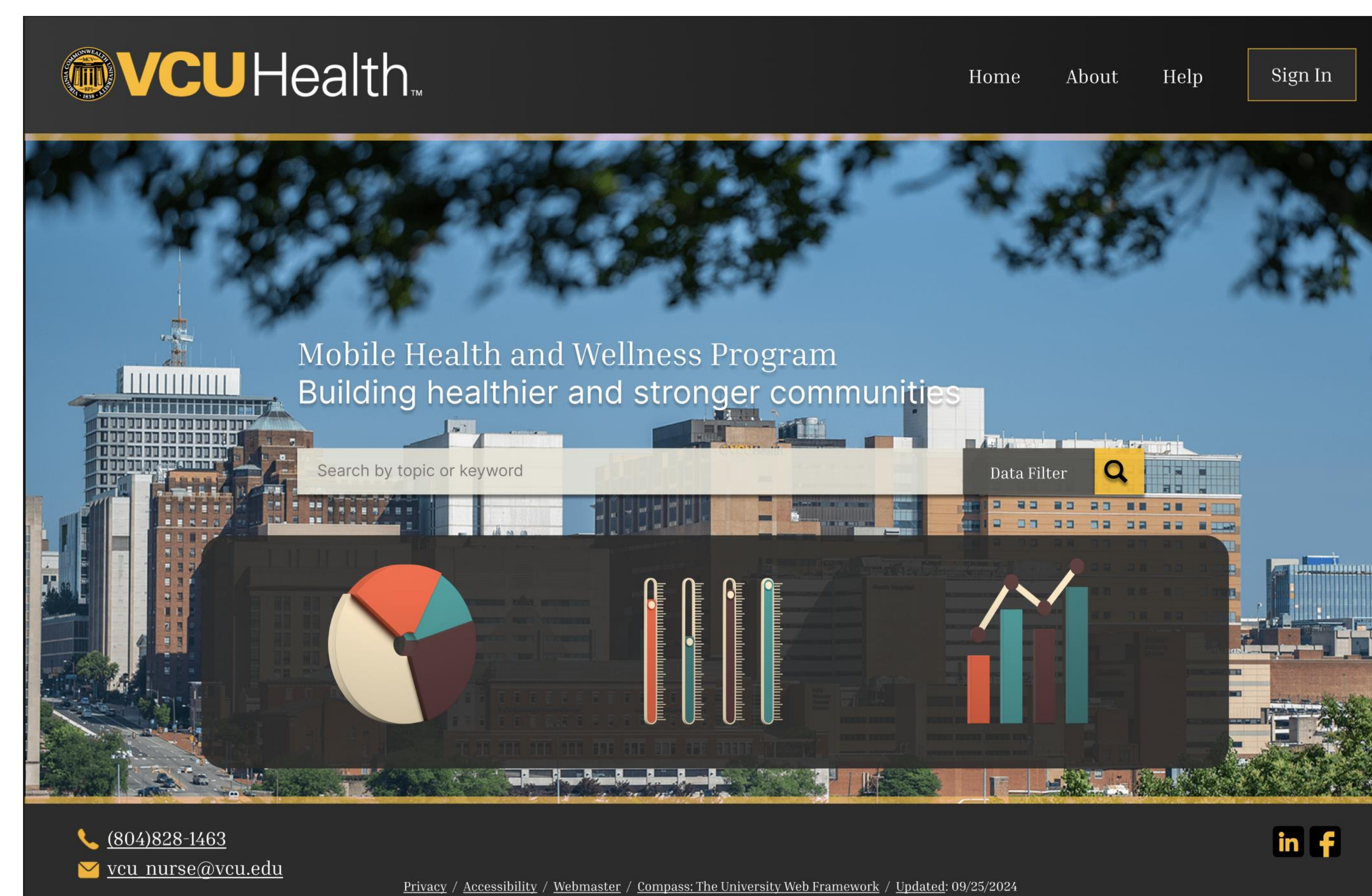- Health Measures (e.g., blood pressure, glucose levels)
- Demographics (age, gender, ethnicity)
- Risk Assessments

## Methods

Our approach involves using APIs to pull participant data from the REDCap system and present it in a user-friendly tablet interface. The tablet app allows researchers to filter participants based on various health metrics, demographics, and risk assessments.



## Results

**The tablet application prototype successfully allows researchers to:**

- Search through participant data using filters.
- Access health measures and risk assessments.
- Generate lists of potential participants for studies based on health markers such as blood pressure and glucose levels.



## Future Work

Improve the functionality and user interface of the tablet application.

Extend the application's ability to integrate with additional datasets.

Add features for visualizing trends over time in health metrics.

Conduct more tests with real data and fine-tune the API for larger-scale cohort discovery.

**VCU** College of Engineering