Sanctuary breeze

Our team is sanctuary breeze

We will solve the problem related to protection from environmental pressures or hazards.

Our solution is to create personalized disaster plans.

Our solution helps families living in regions of high risk.

What makes our solution unique is that it provides safety procedures that are geared to each family’s needs (i.e. language proficiency, income, transportation, etc.).

## Important Deadlines:

**10/16 Wednesday:** Latest start of presentation

**10/18 Friday: 9PM:** Upload all files to github to SDSU Hacks

## Logistics:

Team 227: <https://github.com/BigDataForSanDiego?q=227&type=all&language=&sort=>

<https://www.figma.com/>

## Possible mentors and connections:

* Start sending emails to some of the mentors that presented today
* Jon Mcmanus (Chief Data, AI and Development Officer for Sharp H]
* ]
* ealthCare) <https://www.linkedin.com/in/jontmcmanus/>
* Sharp HealthCare Expert Group (Sharp HealthCare): [hackathon@sharp.com](mailto:hackathon@sharp.com)
* Public Health Focus: [hello@helunahealth.org](mailto:hello@helunahealth.org)

## Personal Experiences regarding health/project experience:

* Eric
  + I took a class on global health,
  + I use a garmin: heart rate monitor: sleep tracker, training for a triathlon
    - Garmin is able to determine heart rate zones and training types of each workout based on the raw data of my heart rate
    - Training: nutrition
      * Calories and macros tracker?
      * Gamify personal health: exercise
    - Strava has heatmaps of where people were walking and important trails
  + Winning proposal to TreeHacks
    - Machine learning algorithm to control robotics arm
  + Backpacking:
    - Elevation exercise
    - Hotspots crews
      * Wildfires meteorology data:
  + Importance of daily habits:
    - Hard to keep track and stay motivated for daily habits
  + Education: importance of educating for public health

Possible demographics:

* Elderly
* Parents
  + mothers
* Children
  + Developing habits at a young age:
    - Track weight, height, activity level
  + Recommend workouts… other possible ideas
* Athletes
* Low-income
* Teenagers
* College students
* High school students
* Homeless population:
  + Cleanliness
* Drug addicts:
  + Smokers
  + Nicotine
  + Alcoholism
  + Pornography stigmatized and treatment
  + Breaking bad habits

## Potential ideas:

Drafts:

1. Problem **Question that is answered**
   1. Solutions
      1. Possible Implementation

### 1. **New Patient Experience: Service Exploration for Elderly**

* **Idea:** Design an app that helps elderly patients explore healthcare services by cross-referencing data from local healthcare providers with Medicare billing data to recommend services based on their health conditions.
* **Data Integration:**
  + **CMS synthetic data:** Analyze what services are frequently used by elderly patients on Medicare to prioritize recommendations.
  + **San Diego Planning Database:** Overlay local hospital and clinic locations to help elderly patients find nearby services.
  + **SANGIS/SANDAG:** Utilize GIS data to show accessible transportation options to healthcare services.

*Core Question Addressed*: New patient experience  
*Optional Question Addressed*: Access to Care for Rural and Remote CommunitiesAccess to good nutrition

* Smoke from wildfires create terrible health effects to people
  + Predict which communities are affected by wildfires

### Access to Care: new features

**Problem at Hand:** Health access disparities from underserved populations and communities (i.e. education, transportation, English proficiency, elderly, etc.)

**1. Access to care:** How can we make it easier to access care (especially specialists) and provide clear, timely notifications, and reminders along their healthcare journey?

* Notification about vaccines and cancer screenings
* Wide range of language interpreters
* Locating doctors and specialists
* Ease access to messaging doctors
* Provide pre-visits and concerns ahead of time before in-person visits
* Provide links to resources\*\*\*

**2. (For Geocomputational Thinker Awards)** Enhancing disease prevention: How can big (geospatial) data analytics and AI be used to improve access to information about the influence of human behavior, cultural practices, and social interactions on the spread of diseases?

* Locate San Diego county regions that experience health disparities (low visits)
* OR address disparities in Imperial County
* Identify ideal transportation routes, health clinics, hospitals, etc.

**Design Idea:** Develop a better, more personalized interactive feature that tracks health status, managing appointment dates, medications, dietary needs, etc. All this information is transferred from the Sharp website.

**Issues to address:** Data Privacy Concerns, health literacy, interface navigation

**Datasets:**

CMS synthetic data

California HHS Data Portal

San Diego County HHS

SANGIS

**3.** Environmental Health Differentials

* Wildfire smoke generated can cause serious health risks

**Theme: Enhancing Healthcare’s Digital Front Door**

* *Digital solutions to help increase access, manage health, and improve patient satisfaction along the healthcare journey*

1. **Topic selections**

**1. Access to care:** How can we make it easier to access care (especially specialists) and provide clear, timely notifications, and reminders along their healthcare journey?

**2. Patient satisfaction:** How can we make it more convenient for patients to provide real-time feedback about their healthcare experience through a mobile app?

**3. New patient experience:** As a potential new customer, how can we leverage the mobile app to help new patients better understand what services are available to them?

**4. Managing my health:** It’s easy to get overwhelmed by all the tasks patients often have to do to maintain their health, how can we make managing health more enjoyable?

**5. Addressing mental health challenges:** Mental health challenges may be difficult to identify and have a broad impact on health, how can we help clinicians be more in tune with patients mental health needs?

**Optional topics paired with core question(s)**

**1. Cultural Competence in Healthcare:** How can we design a mobile app that helps healthcare providers better understand and respect cultural differences, improving communication and care for diverse patient populations?

**2. Access to Care for Rural and Remote Communities:** How can we leverage technology to improve healthcare access for rural and remote communities, ensuring timely and specialized care for those in underserved areas? (Focus on SDSU Imperial Valley Connection - Rural/Remote)

**3. (For Geocomputational Thinker Awards)** Enhancing disease prevention: How can big (geospatial) data analytics and AI be used to improve access to information about the influence of human behavior, cultural practices, and social interactions on the spread of diseases?

**4. (For Geocomputational Thinker Awards)** Addressing environmental health disparities: How can we leverage big (geospatial) data analytics and AI to improve access to resources that mitigate the impact of environmental factors, i.e. pollution, on health disparities?

**Your challenge is to create an app, platform, and/or technology that can tie into the Healthcare theme using datasets provided via our special GitHub site.**

1. **Problem**
2. **Dataset Selections**
3. **Roles**
4. **Soft Deadlines**

Wednesday - put everything together

Thursday - test

Friday - practice presentation

* **Solutions will provide: convenience, better access, more transparency, compassion**