SCIENCE CAREER ADVENTURES

Madi the Disaster Epidemiologist:
Natural Disasters

Who is Madi?

Hello! I'm Madi! I am a disaster epidemiologist. A disaster epidemiologist studies natural disasters, like hurricanes, floods, and tornadoes.

Check out some examples of what disaster epidemiologists do:

Create Emergency Plans

Emergency plans are directions on what people should do in a town or city in case of an emergency. For example, most towns have tornado sirens that sound when a tornado is forming in clouds nearby. When the tornado sirens sound off, people are alerted to get to the nearest basement or tornado shelter and stay safe!

Study How Diseases Spread After a Natural Disaster

Outbreaks of disease, like stomach viruses or pneumonia, can occur after a natural disaster. For example, a massive earthquake hit Haiti in 2010. After the earthquake, the country had an outbreak of cholera because of contaminated water. Cholera causes vomiting and diarrhea hours after people drink contaminated water!

Conduct Surveys to see if People are Prepared for Disasters

A survey is a form that people fill out, either on a piece of paper or online. Last month, I released a survey with five questions about severe thunderstorm preparedness. I asked if people knew what to do if a severe thunderstorm was in the area. I found out that 62% of people don't keep flashlights and candles in easy access locations in their houses! If a severe thunderstorm knocked out the power, they'd be left without any light at all!
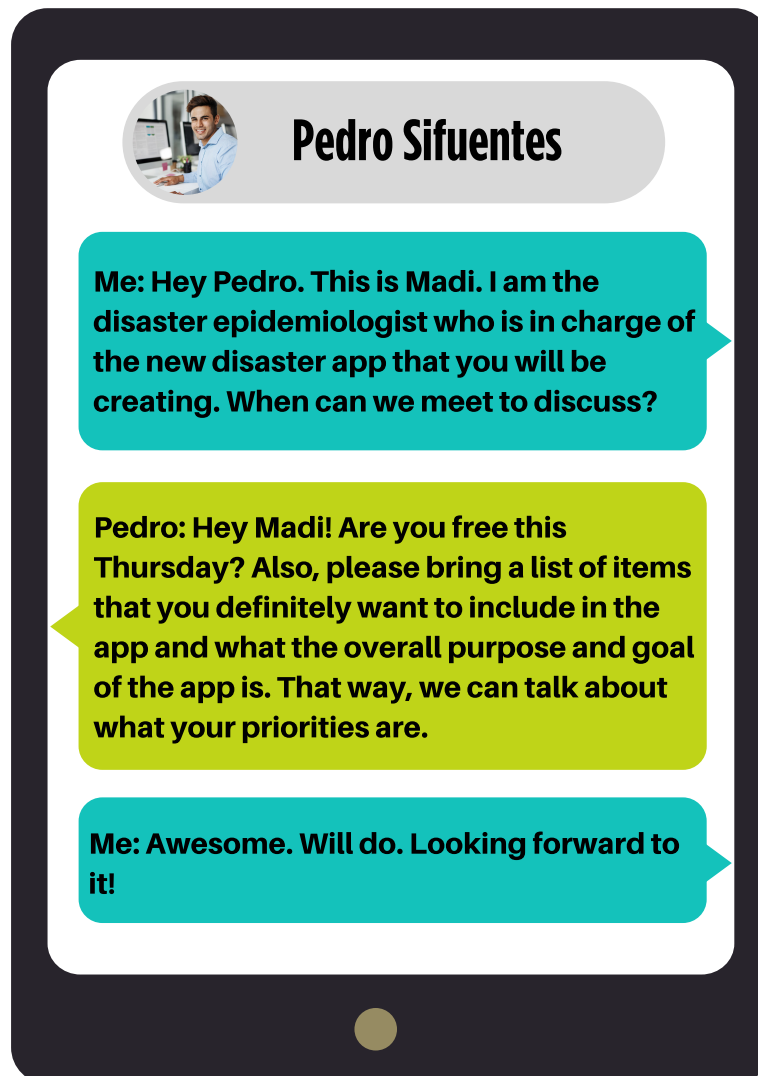
What I'm Working On

Today, I am working with an app developer to create a new app called "Natural Disaster Lookout." People will be able to download the app onto their smartphone or tablet. When a natural disaster is detected, they will receive an alert with additional instructions about what to do to stay safe.

Natural Disaster Lookout!

My first step is to meet with a computer programmer who is in charge of designing and building the app! Here is my text message conversation to set up a meeting with the computer programmer:

Pedro Sifuentes

Me: Hey Pedro. This is Madi. I am the disaster epidemiologist who is in charge of the new disaster app that you will be creating. When can we meet to discuss?

Pedro: Hey Madi! Are you free this Thursday? Also, please bring a list of items that you definitely want to include in the app and what the overall purpose and goal of the app is. That way, we can talk about what your priorities are.

Me: Awesome. Will do. Looking forward to it!

Preparing a List of Ideas

To get ready for my meeting with Pedro, I created a list with the following points:

Overall goals of app:
- To develop a system to alert people of natural disasters in their area.
- To make sure the app is easy to use so people around the world can use the app to get important information about natural disasters.
- The app should also be able to be used by people in different countries and people who are visually impaired.

Features we want in the app:
- Have background information about different types of natural disasters, like earthquakes, tornados, or tsunamis.
- Have a way for people to input their location so they can see if a natural disaster is coming and what to do to prepare for it.
- Have a way for people to use the app in different languages.
- Have a way for people to use the app who are visually impaired.
- Have a way for people to report the weather in their location.
- Have a way for people to report damages that a natural disaster caused, like power outages, fallen trees, or flooding.

Next Steps

I am excited to give my list to Pedro. Once he sees the list, he will start creating a wireframe. A wireframe includes pictures and words that show what the app will look like. That way, I can provide feedback and we can brainstorm ways to make the app easy for people to use!

I can't wait to see my app come to life!