

ZOMBIE TRIAGE

DATA COLLECTION for the C.D.C. FieldAgent™ App



Deanne, Audrey, Dawn Feb. 2016 Weblab

OVERVIEW



- **Problem:** Virus Outbreak Reported in the USA less than 1 hour ago
- **Goal:** To Locate the First Virus Carrier (Patient 0) by testing Zombie Blood- Dead or Reanimated
- **Tools:** Develop App Called FieldAgent(TM) For Zombie Hunter Teams
- **Zombie Hunters:** Armed Teams of two with guns, Bluetooth darts, HAZ. MAT. protective gear
- **Data Collector:** Goes with team of two Zombie Hunters to retrieve bio data, HAZ. MAT. gear

Overview: Actions 1



- **Zombie Hunter Actions:**
- Have Combat Grade Automatic Assault Weapon for Safety
- Have Combat Dart Weapon with Special Bluetooth Blood Sample & Tag Capabilities
- Shoot Zombie with special GPS Dart to collect data to minimize proximity
- Tag Zombie as having been tested to prevent duplication with dart remanent

Overview: Actions 2



- **Data Collection:**
- Create an interface that collects specimen, determines blood type, strain, gender and location of Zombie specimen
- Use the FieldAgent™ analyzer to upload to the C.D.C. database for synching and next Data Processing Step

EMPATHY MAP



THINK & FEEL

Find Patient "0"
Minimize kills in case we find a cure
Don't get myself or team infected

HEAR

We can find a cure
My Loved one had been infected
Be careful out there
The virus is mutating



SEE

Everyone is turning into Zombies
Infrastructure is falling apart
Humans in need
Zombies can be hiding anywhere

PAIN

To prevent infection don't got too close
Don't have too much time to complete
download
Hard to maneuver wearing

SAY & DO

Do what ever it takes
Travel where necessary
Get as many blood samples as possible
Take necessary precautions

GAIN

Sampling from a distance is safer
Find patient "0" = cure
Get as many blood samples as possible
Location patterns gets us closer to target

RESEARCH: The Team



- Who are the Zombie Hunters and Data Collectors?
- What do they do?
- Where do they work?
- Why do they do it?



Life in the Field



- Developers followed a data collection team around for three days to observe their daily activities.
- Their working environment
- Daily activities
- Data collection
- Risks
- Necessary precautions
- Equipment





PROTOTYPE: Darts

- Dart gun: Tool to get the dart to target
- Darts: sensors to analyze blood, with a break off tip that has a locator chip inside (to track migration for future analysis). Bluetooth – 30 feet. Need to pair phone and each dart. Download info to phone then upload later.
- Pocket in uniform to securely hold phone
- Analyze blood to determine: gender, blood type, strain or new mutation
- Use GPS locator, if not available manually enter



PROTOTYPE-Phone App



- Use Camera for facial recognition Phone Security
- Finger Swipe from Home Screen to Activate
- Internal Database to store samples until they can be uploaded to CDC
- Use GPS Location of different strains to determine where more samples are needed.
- GPS for Location of "Safe Houses"
- Solar to charge batteries for Backup Power
- Flux Light Sensor for Day, Bad Weather or Night Infrared
- 911 EMERGENCY, Nearby Team Help
- Sync- Upload Complete



HARDWARE TEST



- Test distance of Bluetooth darts and Bluetooth on phones to make sure they work within 30 feet.
- Make sure phone headsets work so data collection team can communicate with each other.
- Test microchip that transmits location via GPS.
- Test battery life and solar charging units.
- Test Dart guns to make sure they are in working order.



SOFTWARE TEST



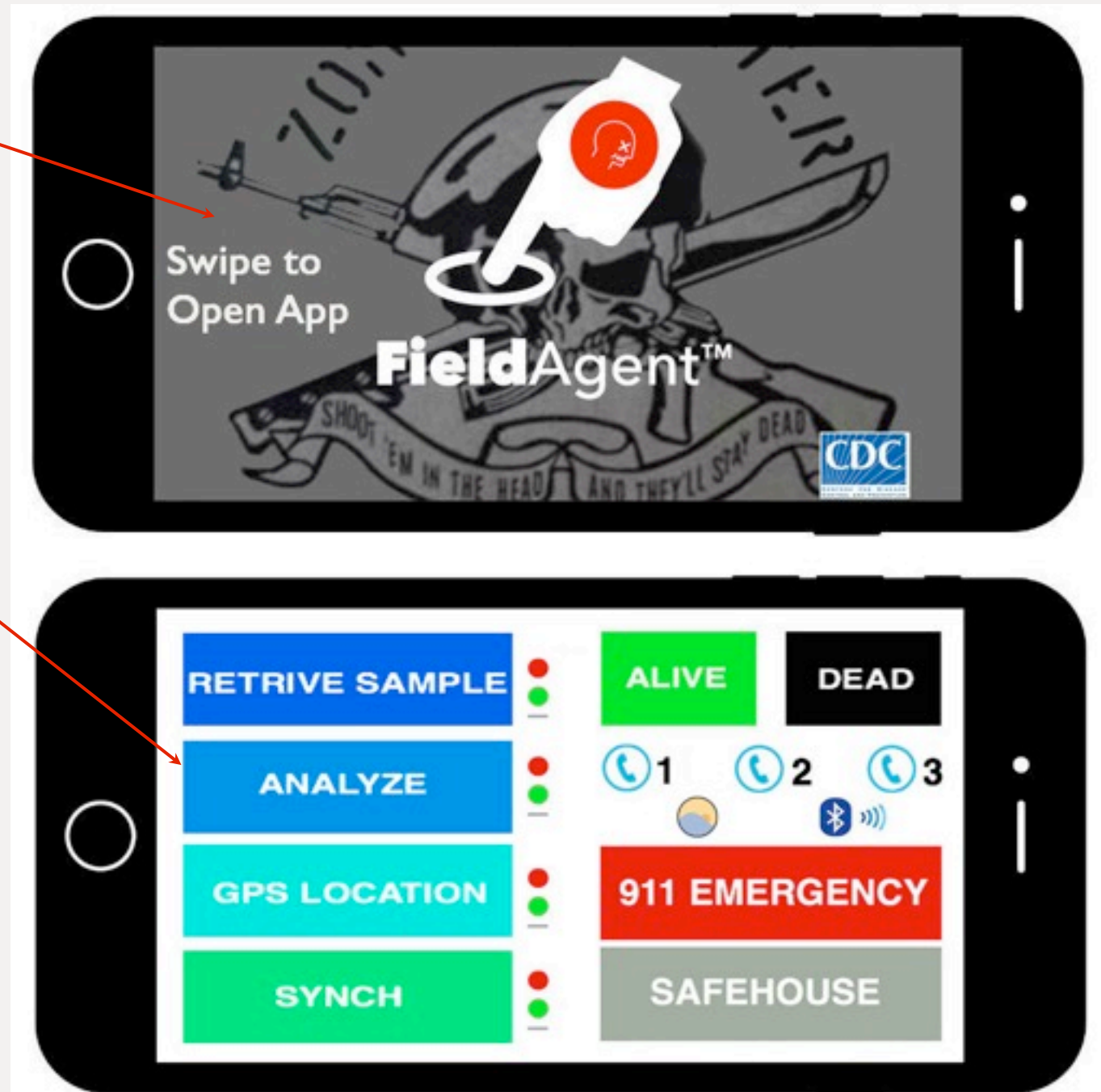
- Make sure phones are able to store data and upload to CDC at the end of the day.
- Test the maximum distance to receive data transmission from dart.
- Test that blood analysis returns correct blood type, gender and strain or new mutation.
- Test upload to main database.
- Test the time it takes to pair dart and phone.
- Test Data Collection Criteria in each type of market.
- Test 911 / Emergency and location indicators including GPS on phone.



FieldAgent™ App



- Default Screen Swipe to Open
- Camera Facial Recognition for Security
- Retrieve Sample from Dart Sensor
- Analyze Blood Sample:
 1. Blood Type
 2. Infection Strain
 3. Gender
- Zombie Status: Alive/ Dead
- Encode GPS Location
- Sync with CDC
- Progress Buttons: Grey to Green= Done
- Phone Button to directly speak with One Team Member with Bluetooth Headset
- 911 Emergency
- Show Safe-house Location GPS
- Bluetooth Stats with Darts & Headsets
- Satellite Wifi Status Indicator
- Military Flux Auto Screen Enhancement/ Infrared



GPS SYNC



- GPS Connection Through Satellite Wifi
- GPS SYNC with CDC to Determine Untested Regions
- Active= Not Tested
- Complete= Tested
- Safehouse= Military Triage & Supply Centers
- GPS SYNC after Region Compete to Upload Data

