Rough Mock-Up: <https://marvelapp.com/prototype/12i83ba4>

Source: <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/faq-surveillance.html>

**COVID-19 Case Surveillance**: Tracking of the disease to see how different demographics are being affected by it and see the differences between the cases.

* Health departments send their reports to the CDC voluntarily without specific details of patients such as names or addresses.
  + Focuses less on tracking the health status of each specific patient but more on the demographic that is being affected and the general risk factor for people.

**How Case information is Being Reported**: Hospitals, Healthcare Providers, and Labs are sending all of their data over to their local or state public health authority (Boston Public Health Commission) and from there the public health authority will notify the CDC of their new reports and if the CDC finds that there are public health concerns at an international level they will send that information to the WHO.

**Challenges with COVID-19 Case Surveillance:** Especially early on some of the hospitals, healthcare providers, and labs were being overwhelmed with so many cases it was difficult for them to send reports with complete demographic information over to the public health authority.

* People who are positive but asymptomatic may not be going to get tested so that would mean there would not be a reported case even though there was a positive person.
  + On the other hand people in severe instances (ventilator/ICU) are more likely to be reported therefore the numbers being reported may seem like there are heavy percentages of hospitalizations in positive test results but in reality there is a large population that is asymptomatic or having mild symptoms that isn’t getting tested at all.

**Trying to Fix these Challenges:** The CDC is trying to automate the case reports from the electronic health record so that if hospitals are being overwhelmed the details of the patients will still be able to get reported to the CDC allowing for them to get a broader idea of who is being the most affected by the virus and determine different risk areas.

**What I Want my Interface to Achieve:**

* **Main Screen:** On the main screen there will be a search bar for users to type in the name of their town. Under the search tab there will be the daily and total number of hospitalizations and positive cases in the entire state until they select a town. with a dot next to the number depicting whether there is a positive or negative trend. Underneath that there will be a line graph that just shows the overall trend of the cases and hospitalization (there will also be a tab allowing the user to change the graph to show the number of cases or the number of hospitalizations). Next to the search bar I plan on having a exposure risk button that will bring the user to a new page where they can input their location, a day that they were at that location, and the time at which they were at that location so that using contact tracing the interface would be able to notify the user whether or not they were at the same location as somebody who tested positive. The total number of interactive elements on this screen is 6 (the search bar, the 2 tabs above the numerical data, 2 tabs on the graph, and the exposure risk button).
* **Town:** Once the user searches for their town they will look very similar to the main page where the hospitalization and positive cases are shown in number on the top where you can click between the daily and total and then a graph at the bottom that shows the timeline of the hospitalizations and positive tests.
* **Exposure Risk Button:** With the user’s permission the app will track their location and tell them whether one of the locations they spent at least 5 minutes stopped is a risk area by contact tracing. If the CDC can automate the case reports from the hospitals, they can also spend more time focusing on finding out where patients were before they tested positive. If the hospitals can submit this data into the app then any location where a positive person was would be marked as risk and anybody who was in that location for an extended period of time would be notified by the app to get tested.