

Wireframe Prototype Iterations



Design Decisions: How to Display the Map

We want to make sure the user gets the informational needs they require to understand the map, as well as have a positive experience navigating around the map itself. The customer wants to also explore adding graphs to the map.

We will explore what the website would look like with a view different options:

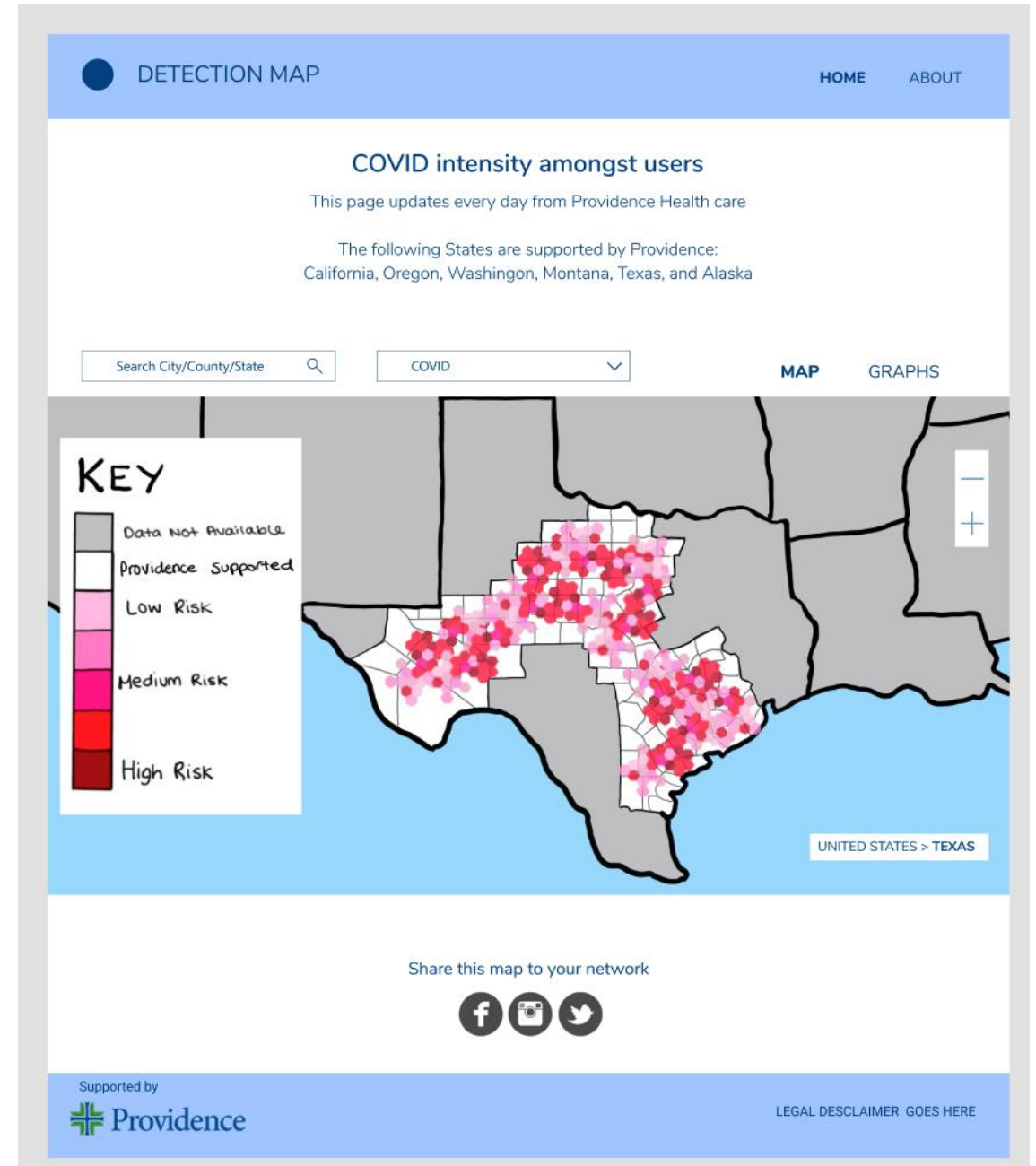
- A giant map with pop ups for information
- A giant map and a giant text/information section
- A giant map with graphs intertwined and separated

Option 1: Info View/ Large Map Split

The goal of this website was to show a few different components:

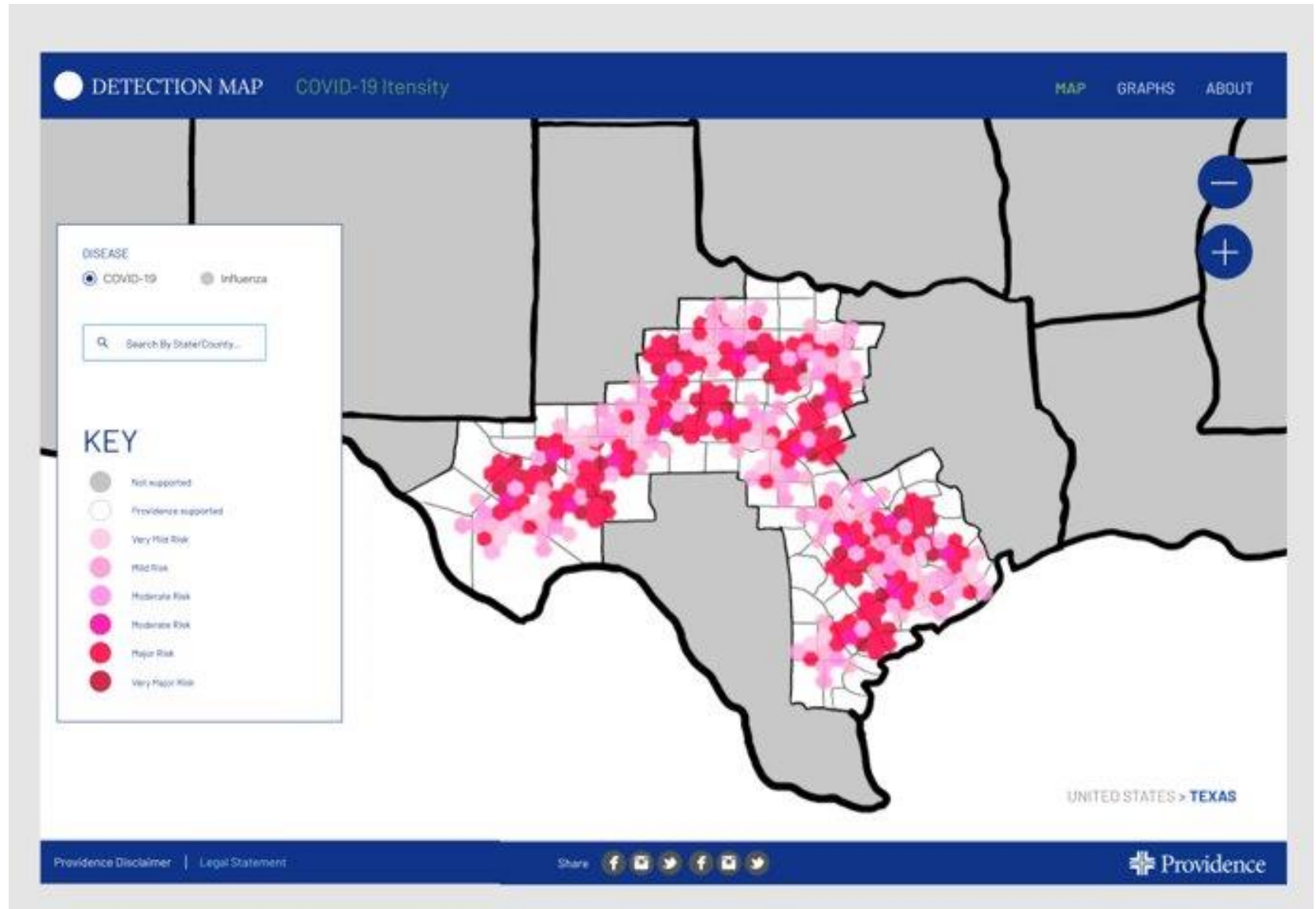
- Information about the website/map
- A large map view of the visualization
- A social section to share the map to friends/family members

I made this design decision so users would know the context of the data they were looking at before they looked at the map



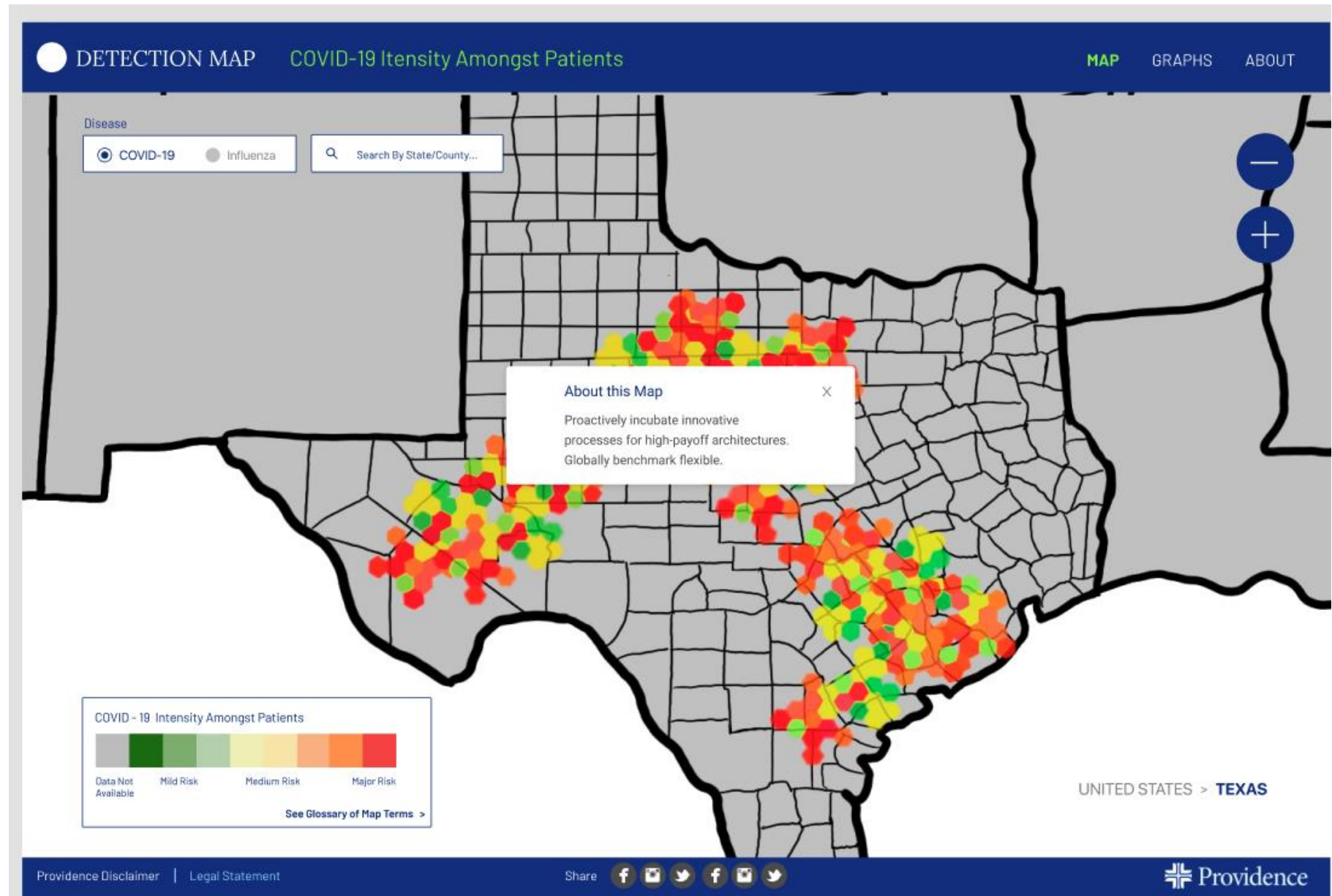
Option 2: Large Map & Side Key

- The goal of this website was to focus on a large map visualization.
- The key is docked on the left side of the map in this iteration
- This is a view of the map zoomed in on a Providence supported state



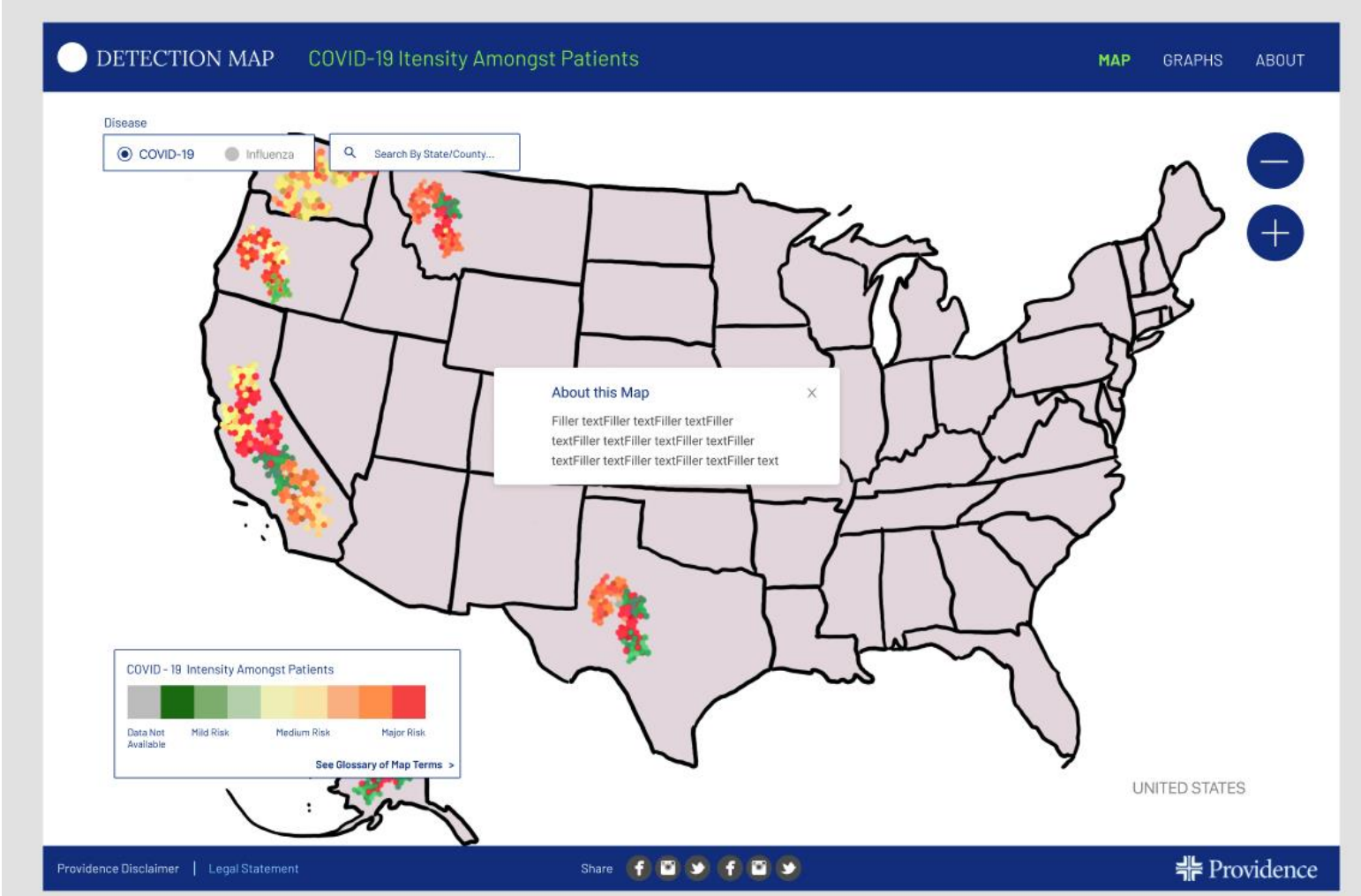
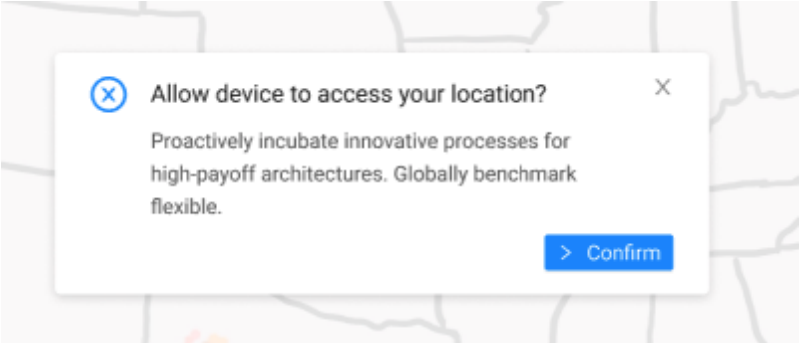
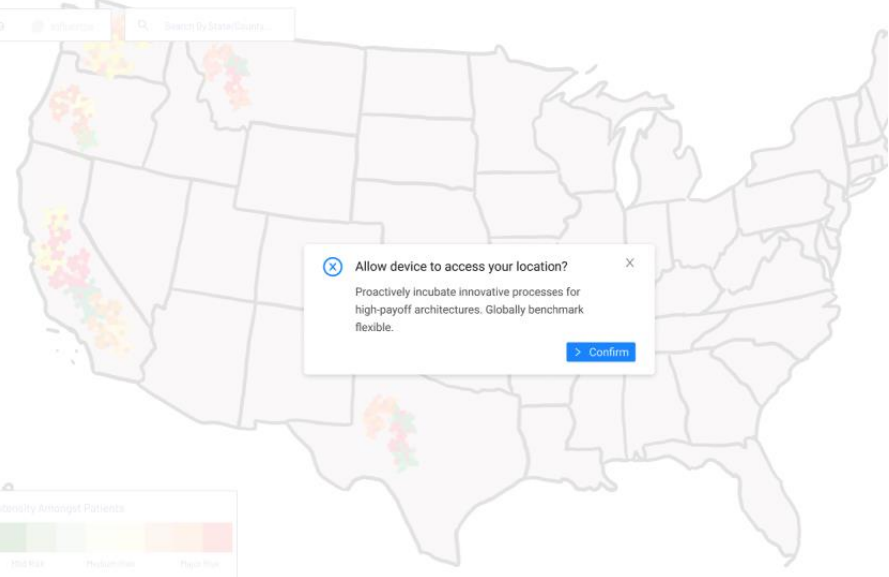
Option 3: Large Map & Bottom Key

- The goal of this website was to focus on a large map visualization
- Since there is no data/info view on top of the map in this view, this iteration uses pop ups to explain the purpose of the map.
- The key is docked on the bottom of the map in this iteration



Option 3 (cont.)

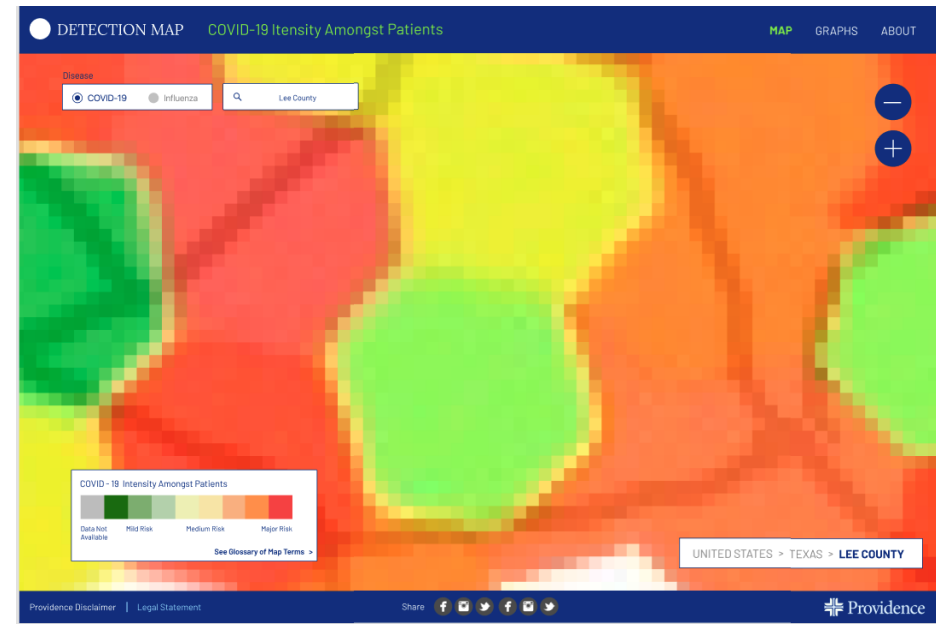
- This is a view of the map zoomed out at the USA level before zooming into a specific area.
- The website is also requesting the user's location to directly navigate them to the region they live



Option 3 (cont.)

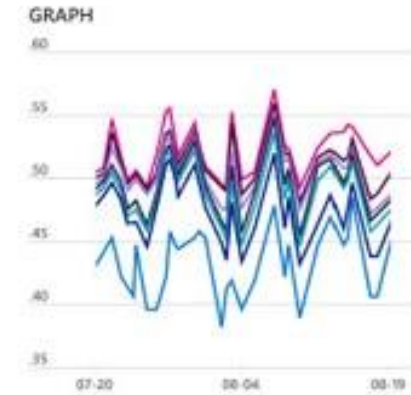


- This is a view if the map zooms in on a user's location that is not on the map. This isn't the best experience since the changes of your area being supported are low.
- We also see what it would look like if the area was supported



Option 4: Map/Graph Toggle

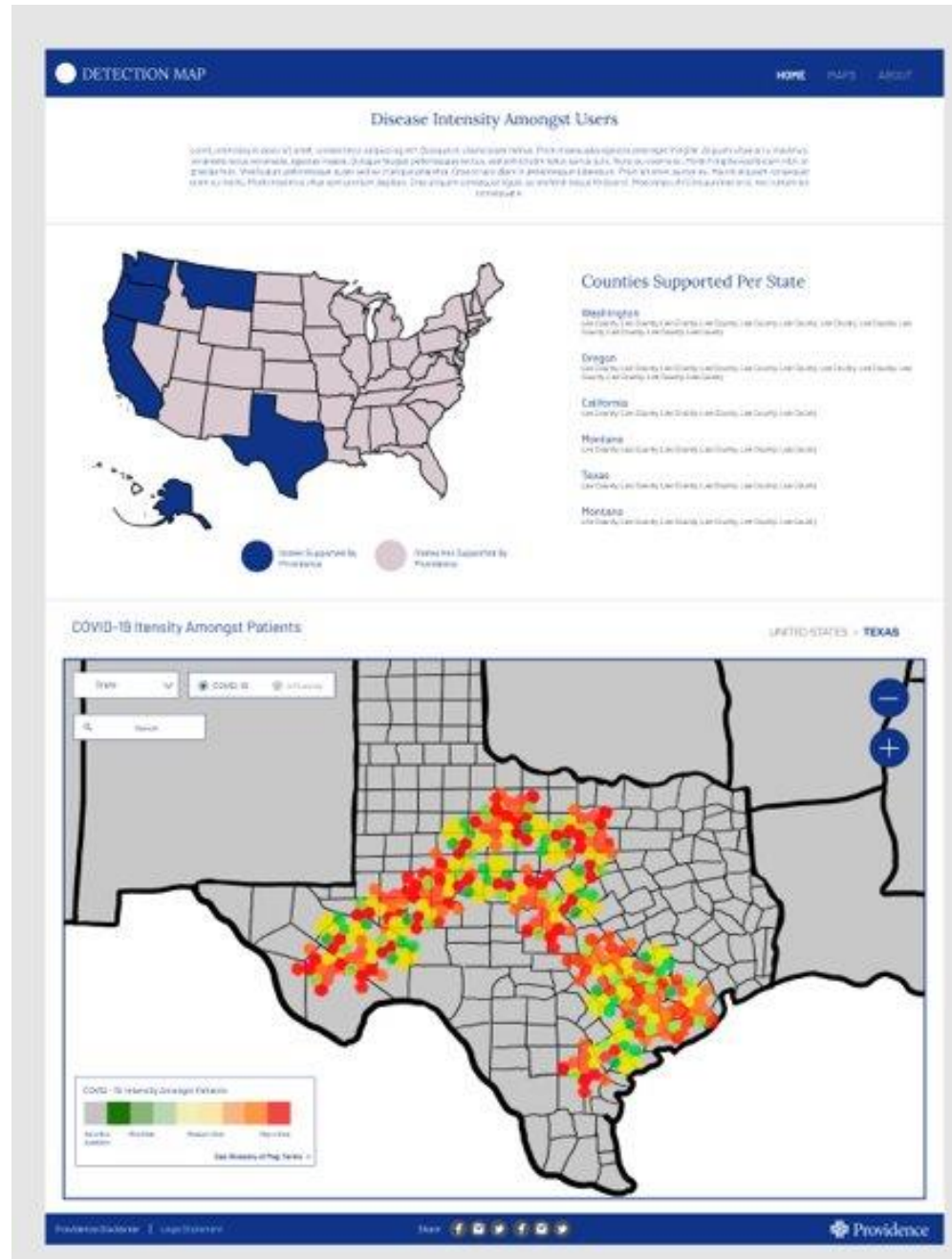
- This iteration has the data view above the map, and a large section dedicated to a toggle for the map view, and graph view. This is the first iteration showing graphs integrated into the website as the customer requested this feature.
- I think this is very confusing for users and the data views need to be integrated



The graph will show a historical view of COVID infections over time

Option 5: Giant Page: Data & Map

- This is very similar to option 1. The main difference is the size of the infographics.
- This view focuses on letting the user know which areas are supported by Providence before they get discouraged knowing their area isn't supported (once being zoomed in)



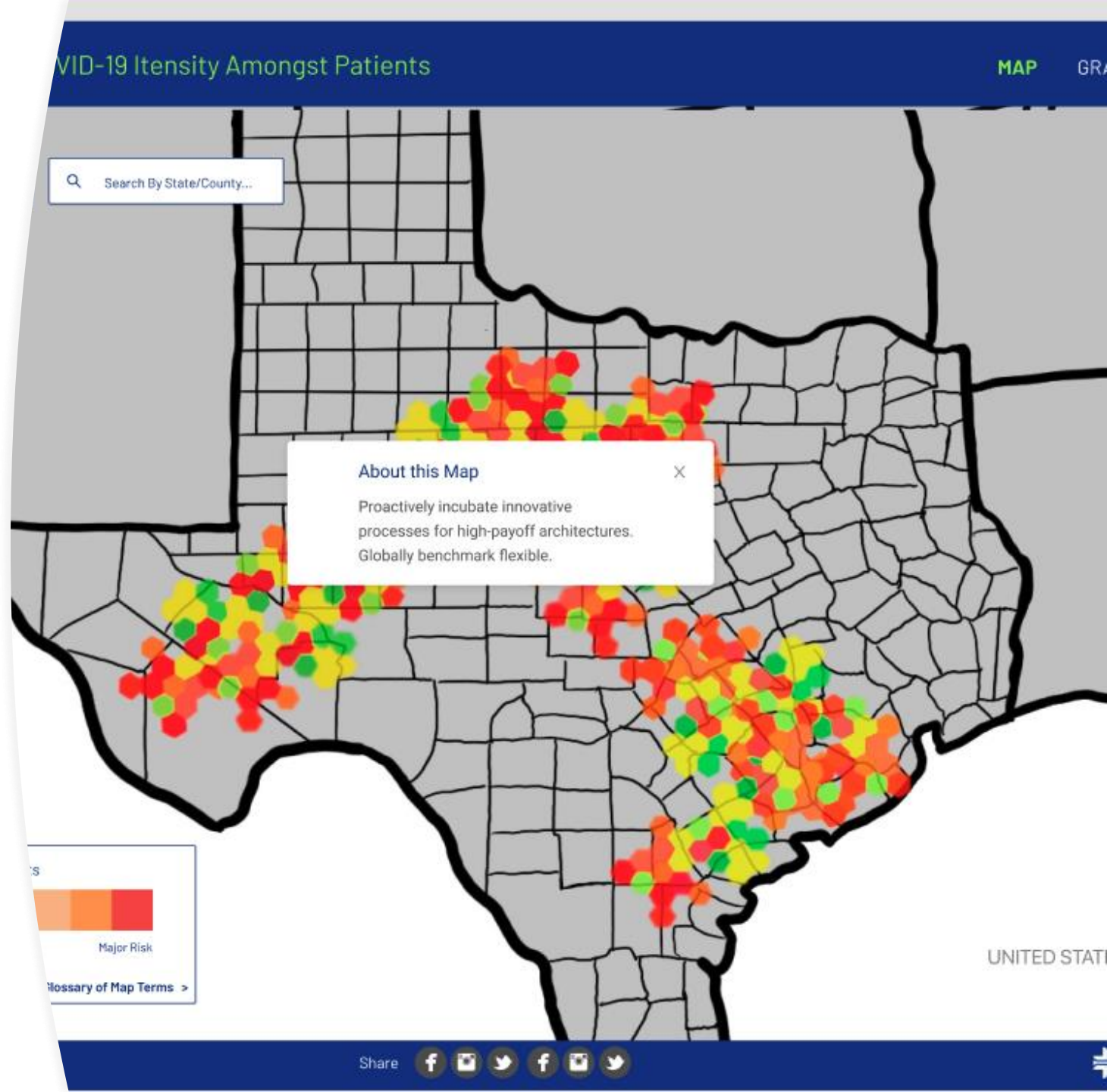
Decision:

Option 3 - Giant Map!

Since there is no section dedicated to informational text when arriving to the website, we want to make sure the user gets the informational needs they require to understand the map. To achieve this, we are using pop ups.

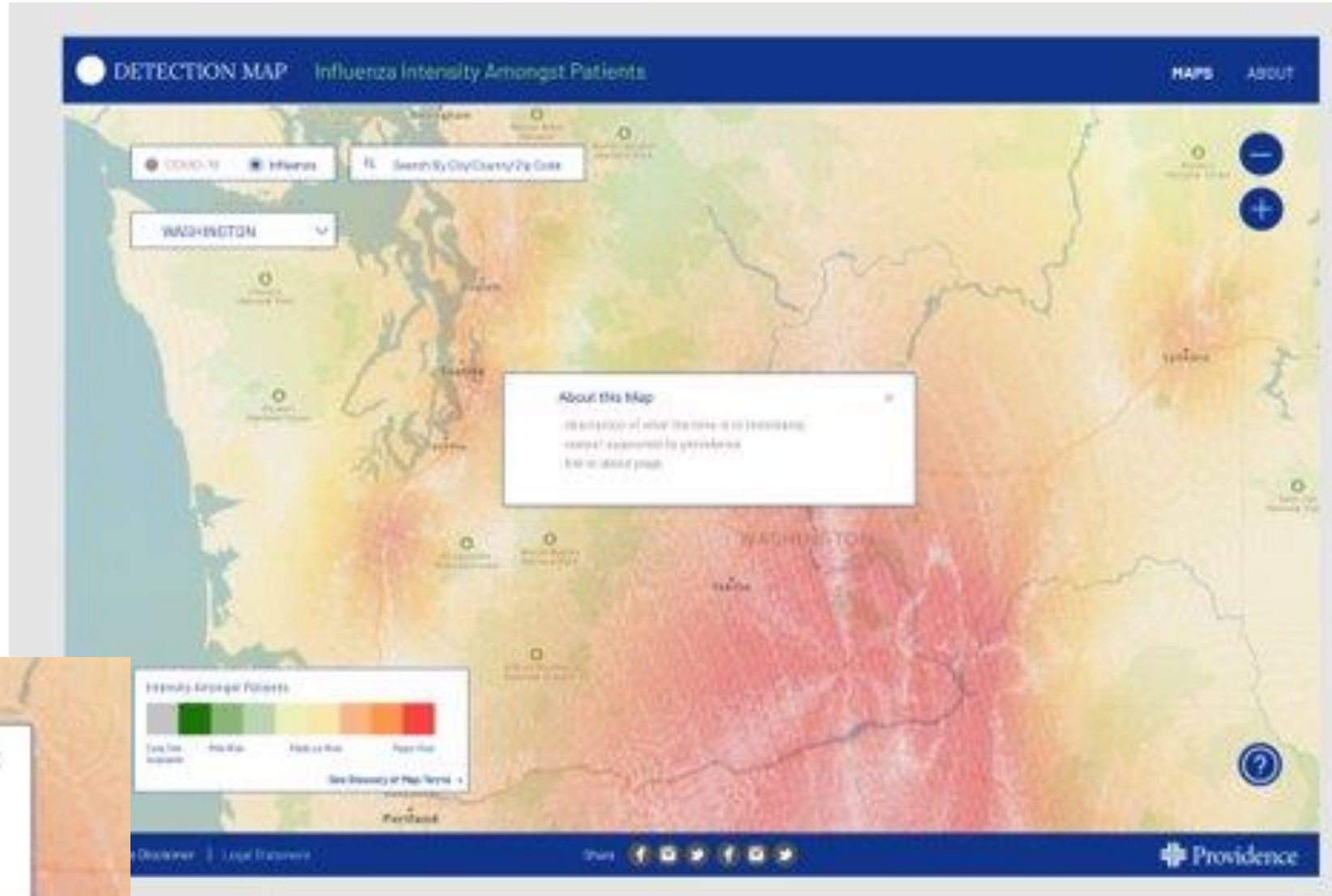
These include

- Glossary of map terms "key"
- About this map pop up on arrival



Pop Up: "About this Map"

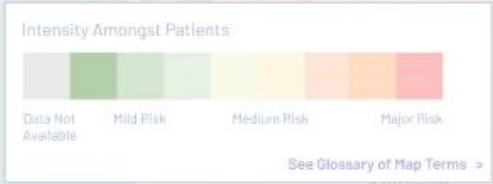
This will give a brief overview about who built the map, the areas the map supports, as well as a link to the about page if users want to learn more.



COVID-19 Influenza

Search By City/County/Zip Code

WASHINGTON



Glossary of Map Terms [X]

Data Not Available: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus eget felis quis turpis euismod maximus at dictum tellus. Sed convallis, odio a blandit pellentesque, arcu odio volutpat tortor, a ultrices.

Mild Risk: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus eget felis quis turpis euismod maximus at dictum tellus. Sed convallis, odio a blandit pellentesque, arcu odio volutpat tortor, a ultrices.

Medium Risk: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus eget felis quis turpis euismod maximus at dictum tellus. Sed convallis, odio a blandit pellentesque, arcu odio volutpat tortor, a ultrices.

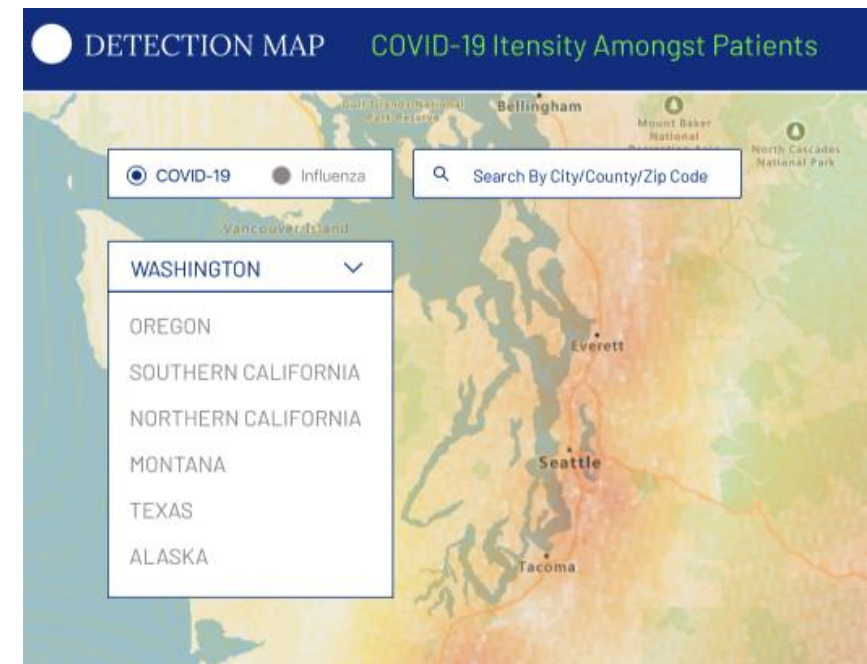
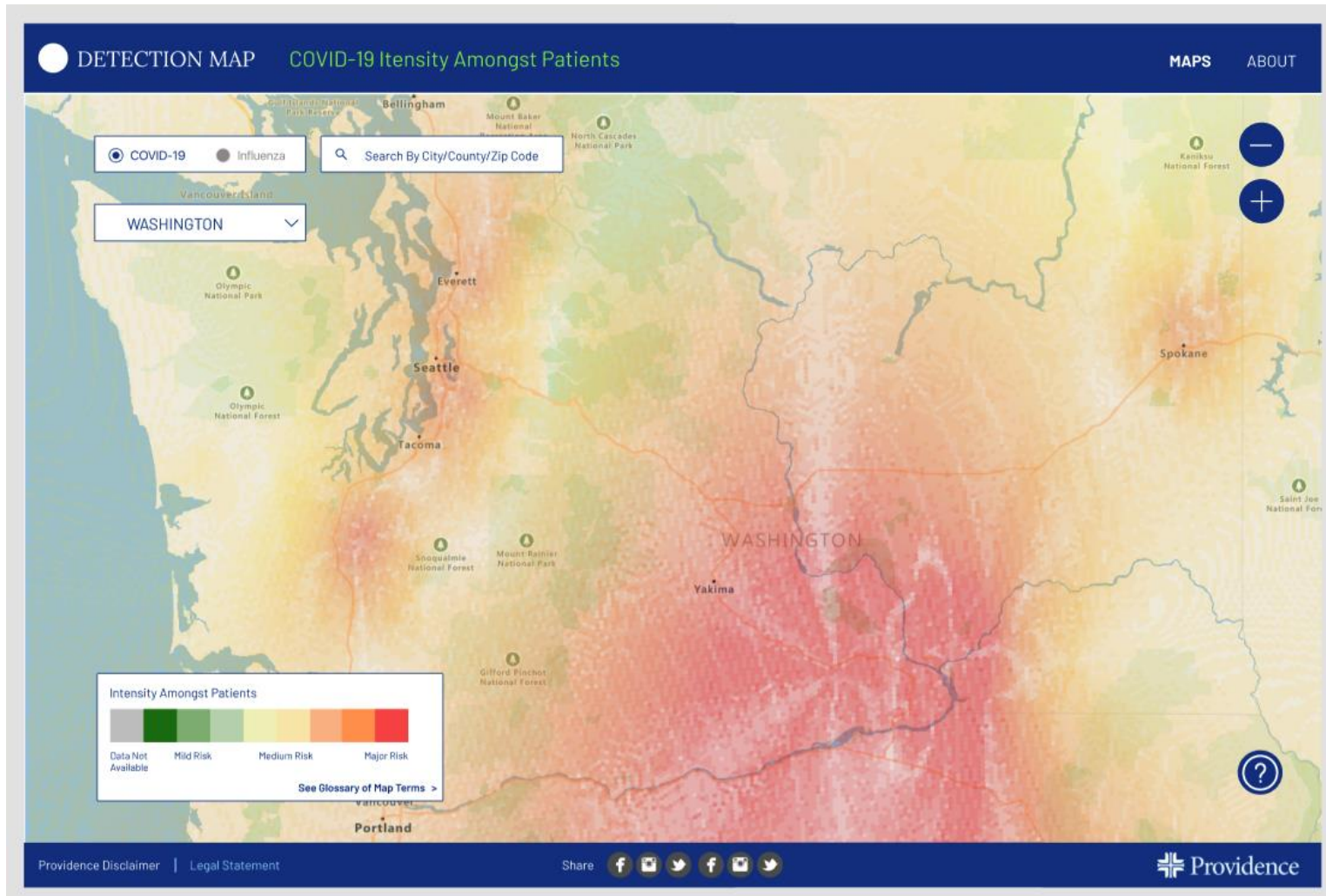
Major Risk: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus eget felis quis turpis euismod maximus at dictum tellus. Sed convallis, odio a blandit pellentesque, arcu odio volutpat tortor, a ultrices.



Pop Up: "Glossary of Map Terms"

This pop up opens when you click the question mark button on the bottom right corner. It explains what the term "risk" means, as well as explaining what non supported data sections are

Navigating Around the Map



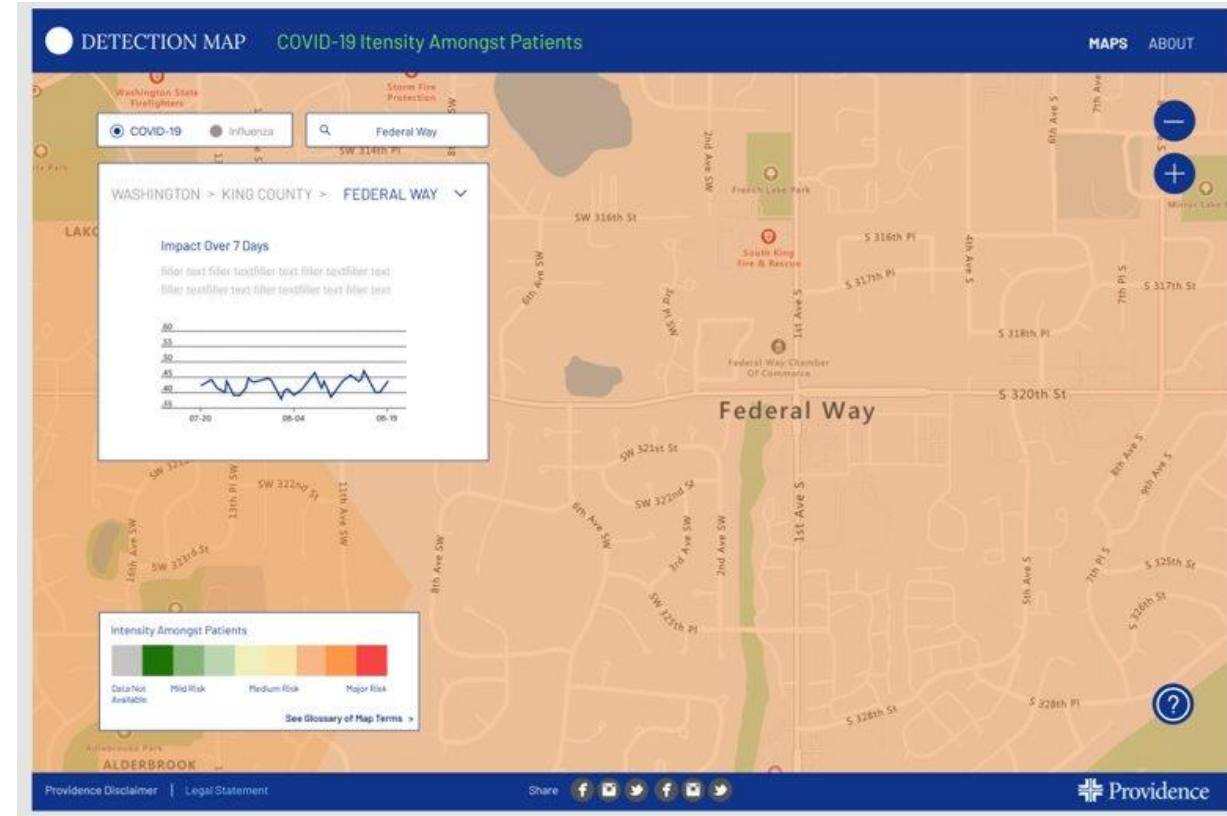
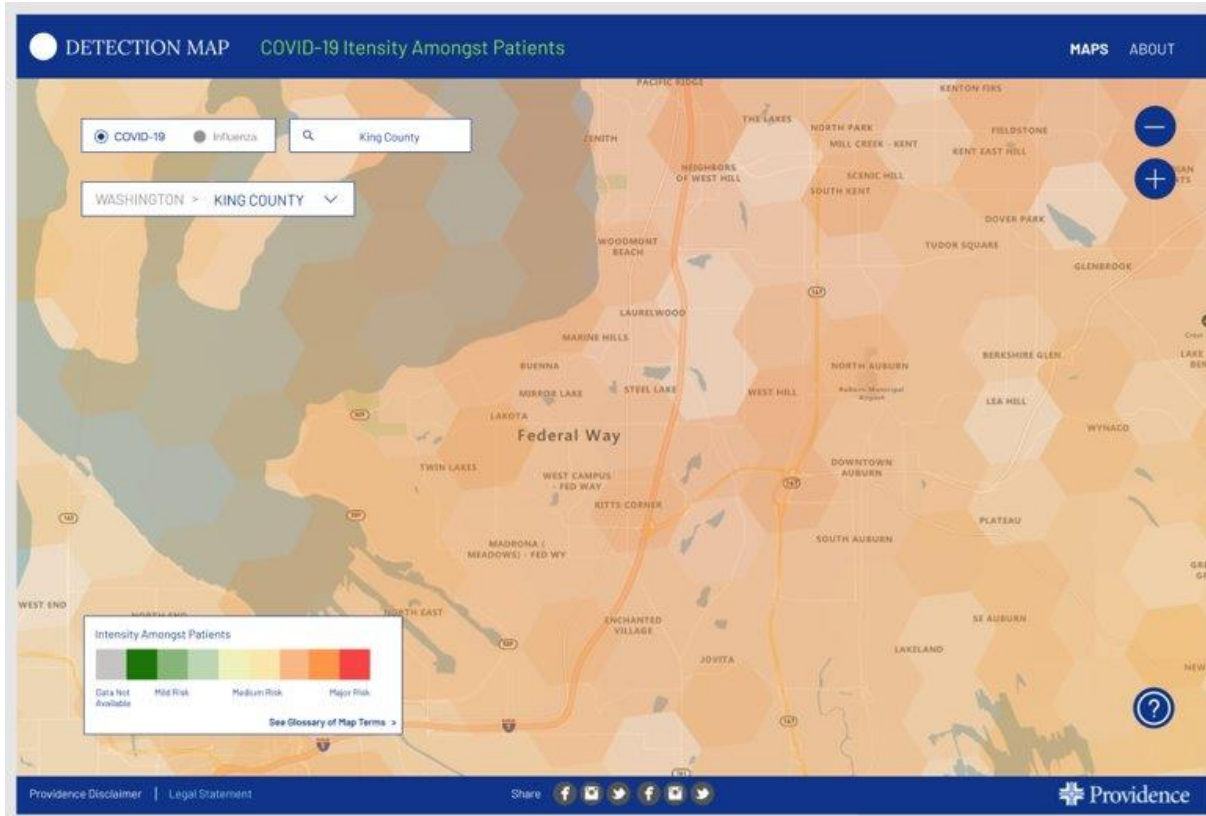
Users can navigate to a state using a drop down (preselected to only the 7 supported states)

They can additionally use the search bar to navigate to an area of their choosing

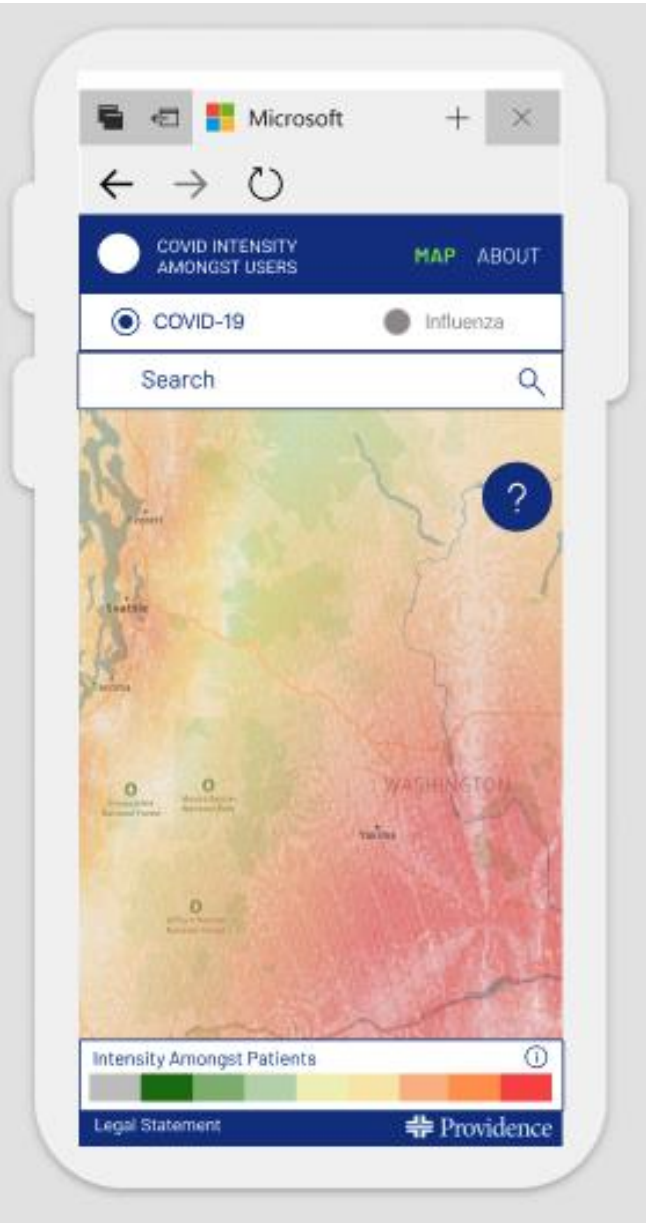
Zooming in on a Supported Area

If a county is supported, this is what the user will see - a heat map approach to view risk of infection.

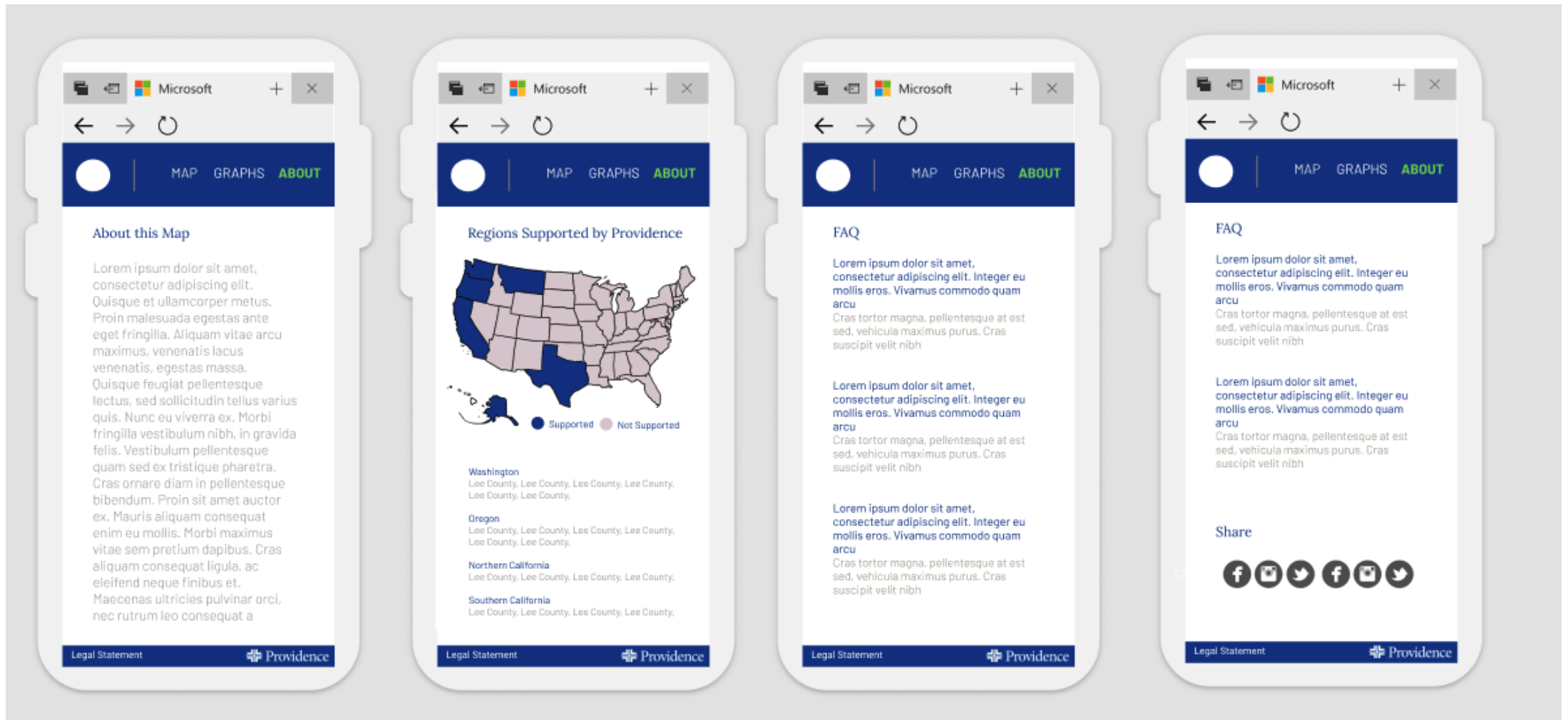
A graph will also pop up showing the spread of COVID over the last 7 days. This graph will be collapsible if the user doesn't want to see it.



Mobile View - Map



Mobile View - About Page



Design Decisions: Accessibility and Color

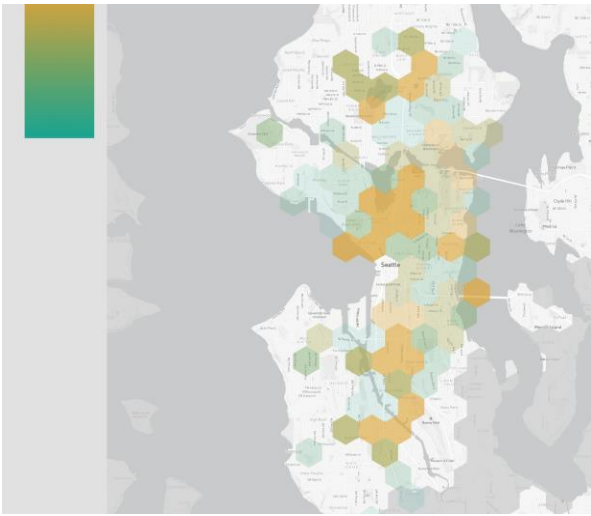
We want to make sure our hexagon colors are accessible to all types of color visions. The current color selection picked by the customer is not the most accessible unfortunately

We want to explore what the map looks like to the following color visions:

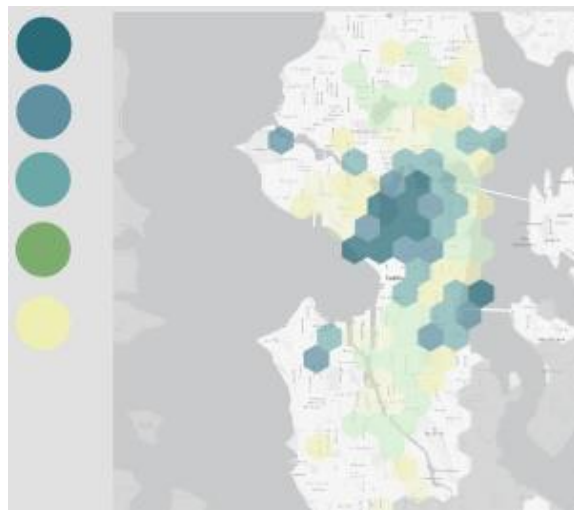
- Green/Red Color Blindness (Deuteranomaly, Protanopia)
- Blue/Yellow Color Blindness (Tritanopia)
- No color blindness

The purpose of this exercise is to visually show the customer what the different options looks like so they can make a decision backed up by data. We will explore what the map looks like in multicolor, single color, and monochromatic views for these types of color vision

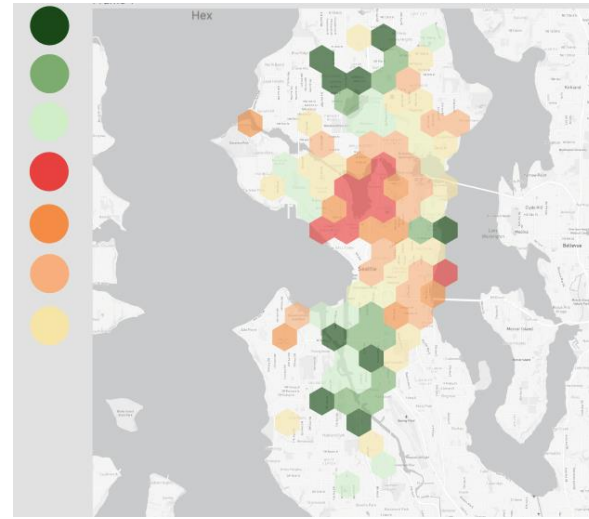
COLOR OPTIONS: Multicolor and Single-Color Gradients



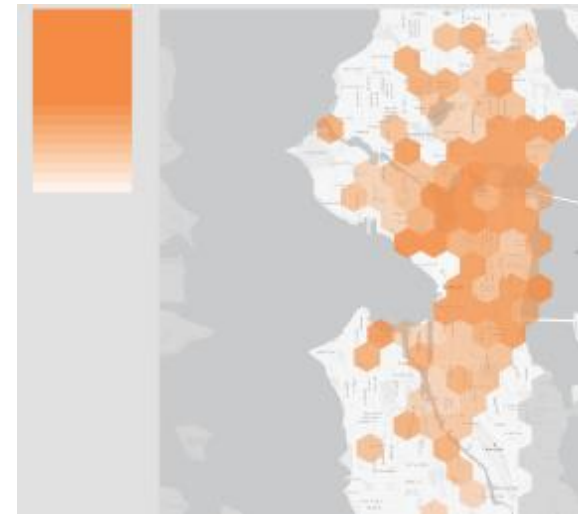
Option 1: Multicolor



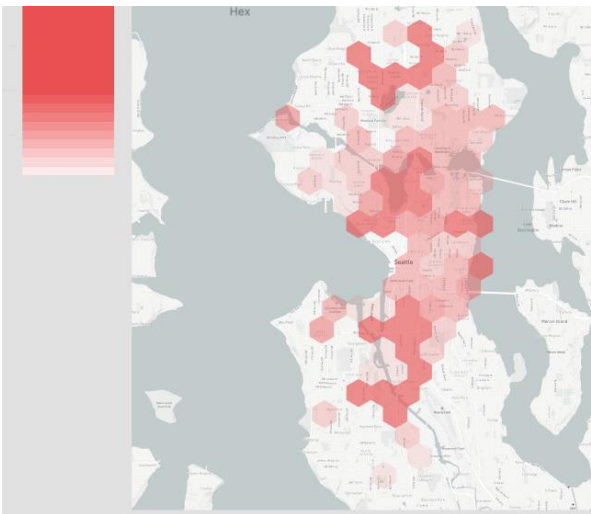
Option 2: Multicolor



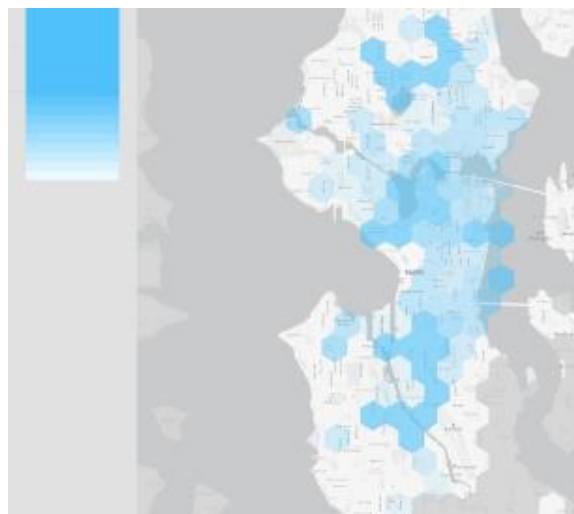
Option 3: Multicolor



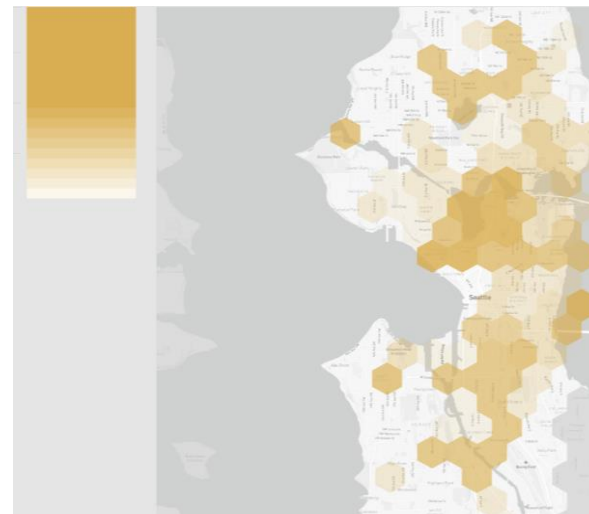
Option 4: Orange



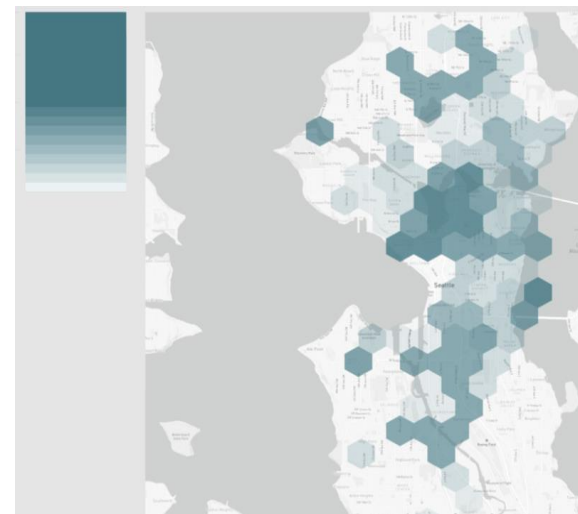
Option 5: Peach



Option 6: Light Blue



Option 7: Gold

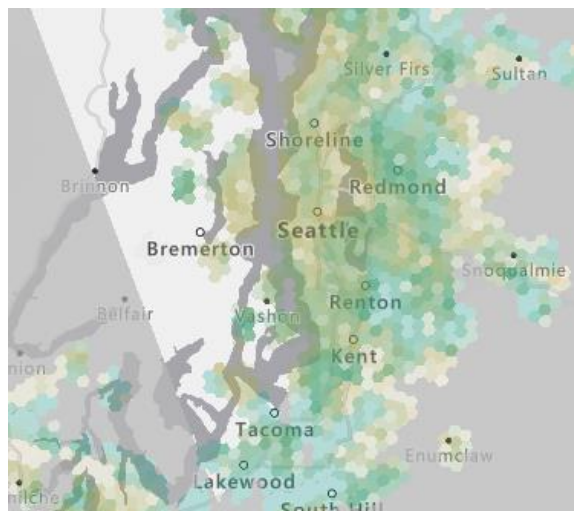


Option 8: Teal

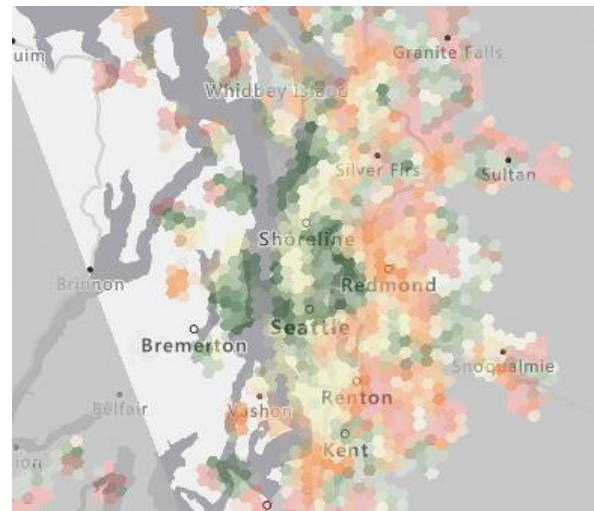
COLOR VISION - None



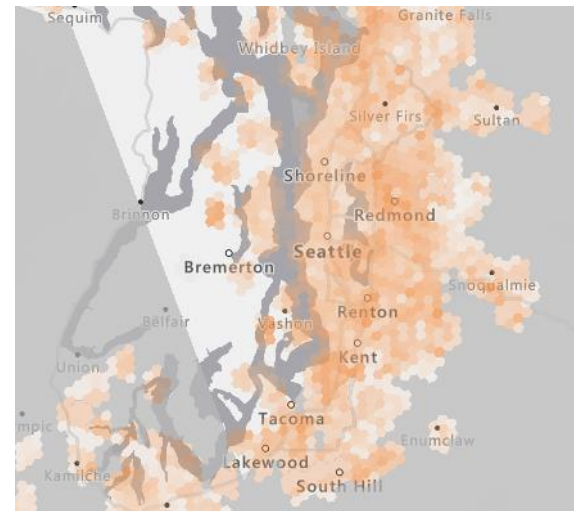
Option 1: Multicolor



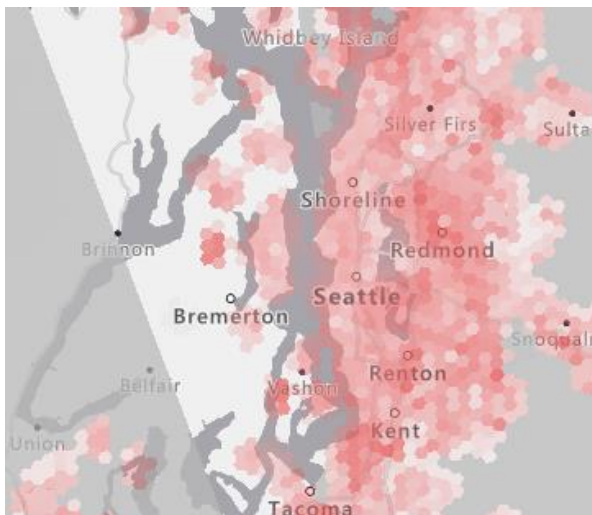
Option 2: Multicolor



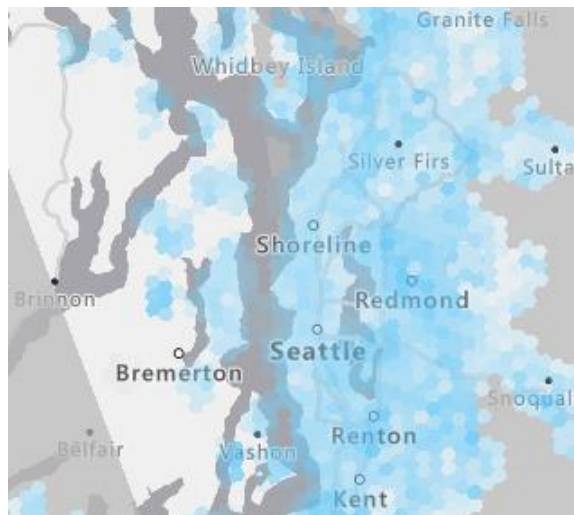
Option 3: Multicolor



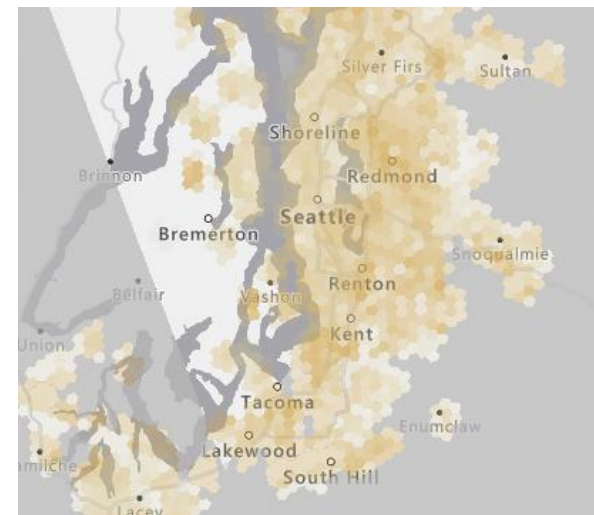
Option 4: Orange



Option 5: Peach



Option 6: Light Blue



Option 7: Gold



Option 8: Teal

COLOR VISION

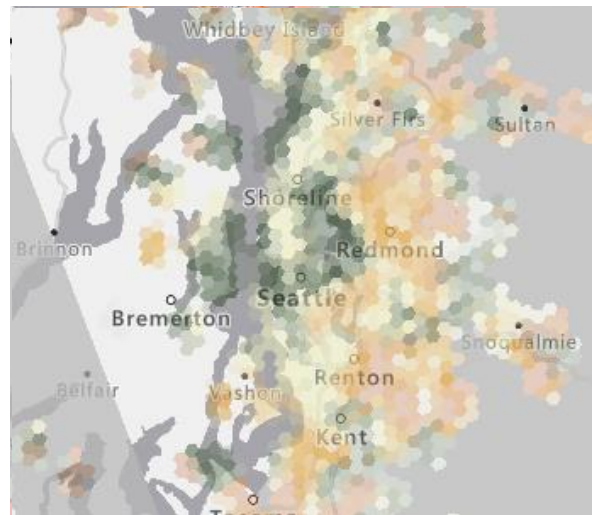
Deuteranomaly: Diminished response to green and red



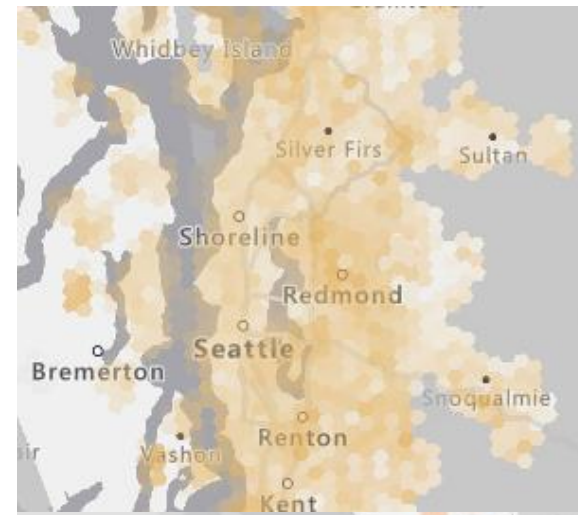
Option 1: Multicolor



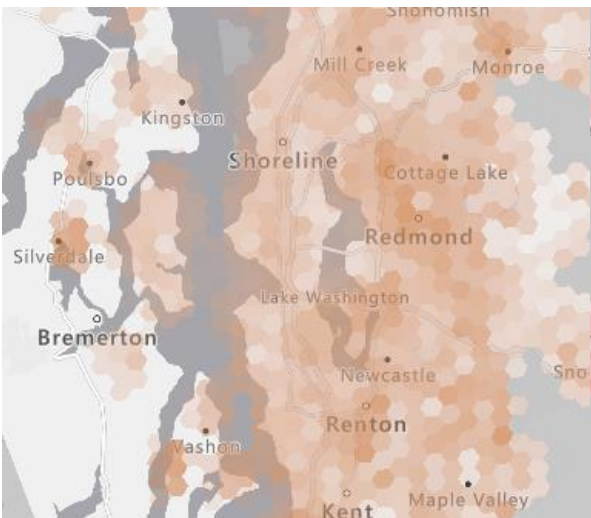
Option 2: Multicolor



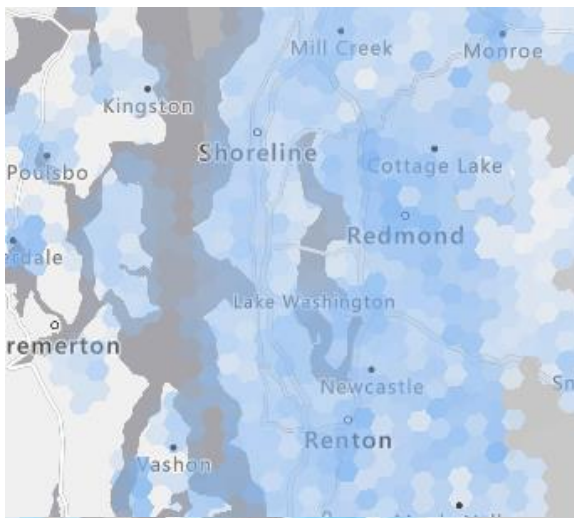
Option 3: Multicolor



Option 4: Orange



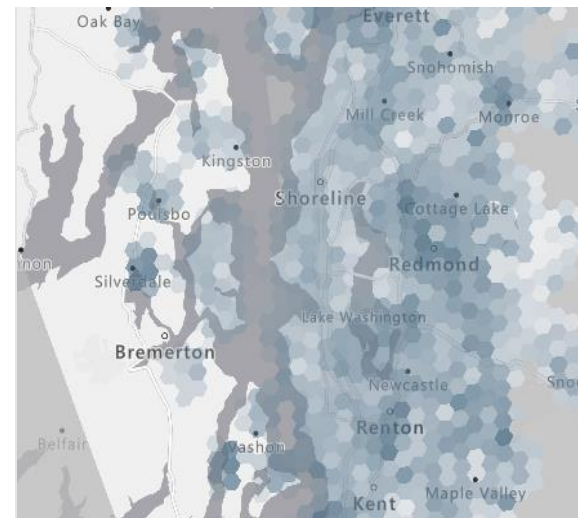
Option 5: Peach



Option 6: Light Blue



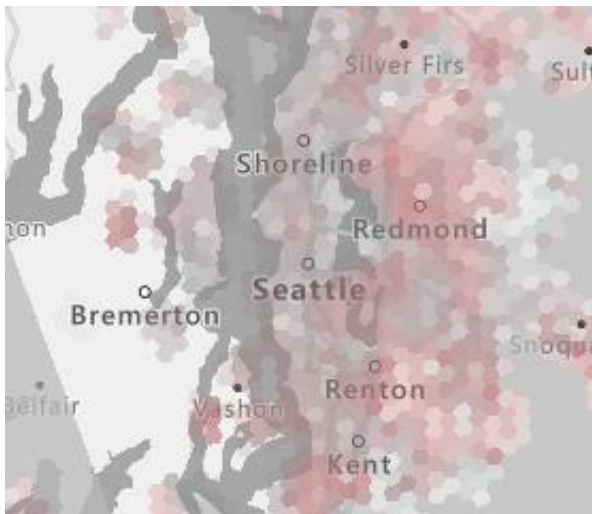
Option 7: Gold



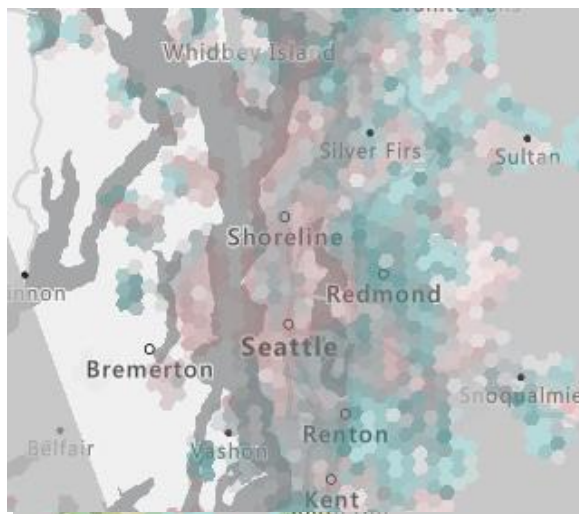
Option 8: Teal

COLOR VISION

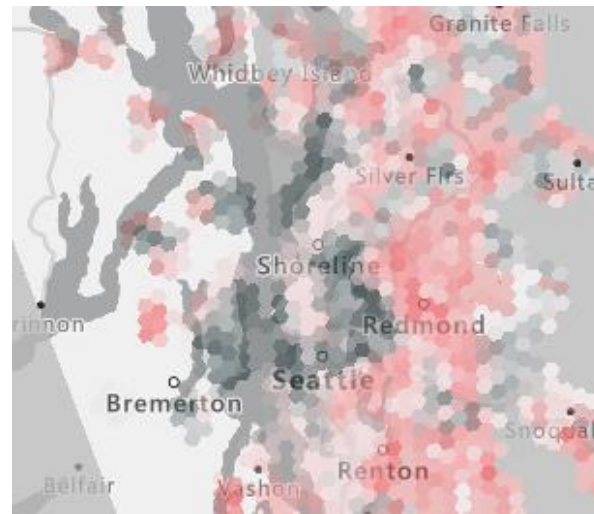
Tritanopia: Retina has troubles distinguishing blue and yellow



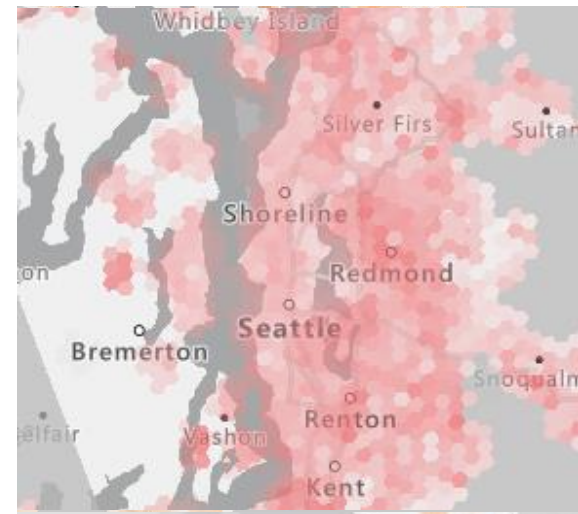
Option 1: Multicolor



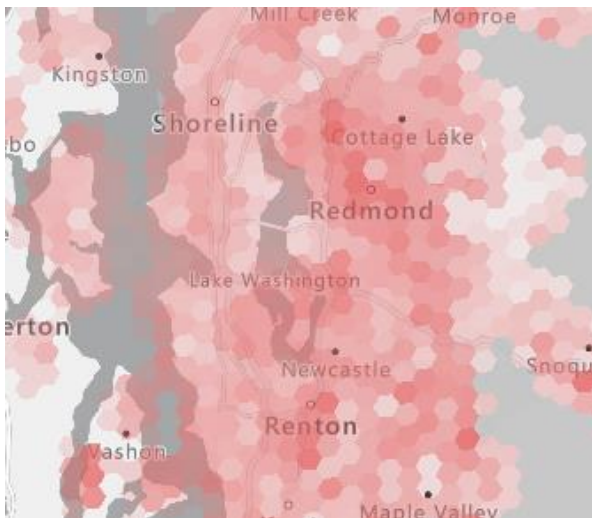
Option 2: Multicolor



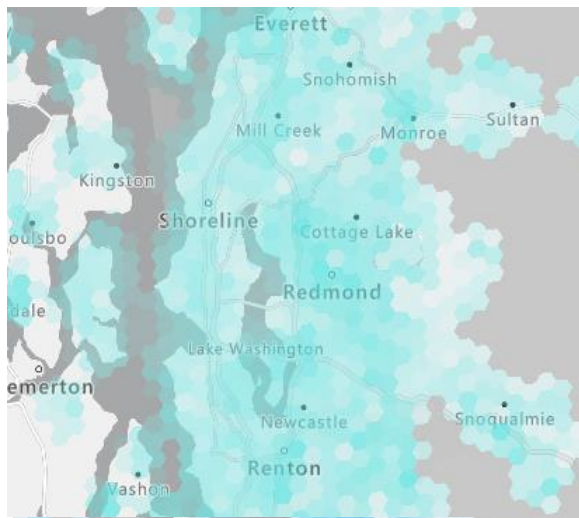
Option 3: Multicolor



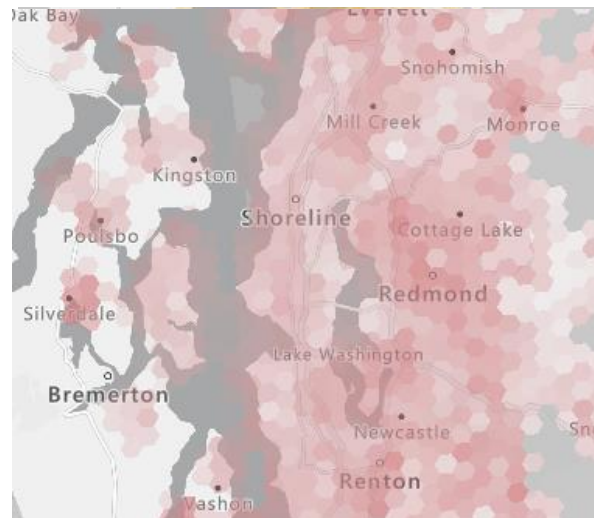
Option 4: Orange



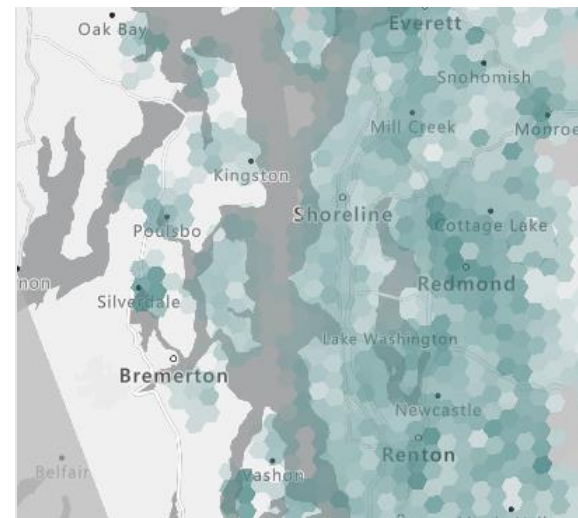
Option 5: Peach



Option 6: Light Blue



Option 7: Gold



Option 8: Teal

COLOR VISION

Protanopia: Retina doesn't respond to green or red



Option 1: Multicolor



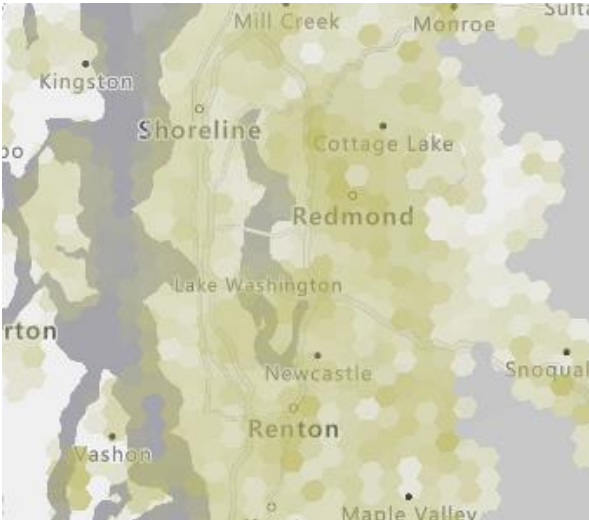
Option 2: Multicolor



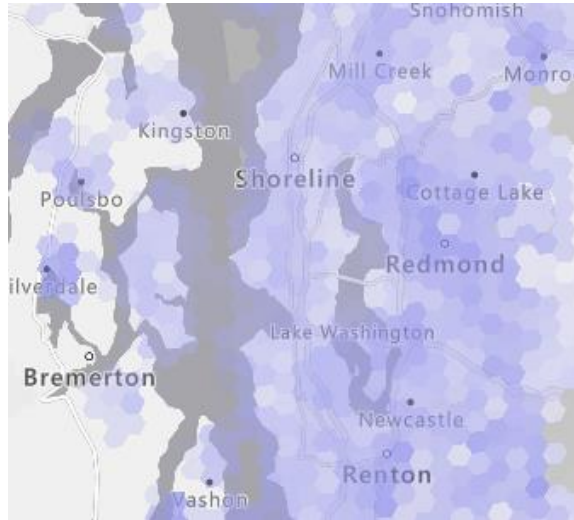
Option 3: Multicolor



Option 4: Orange



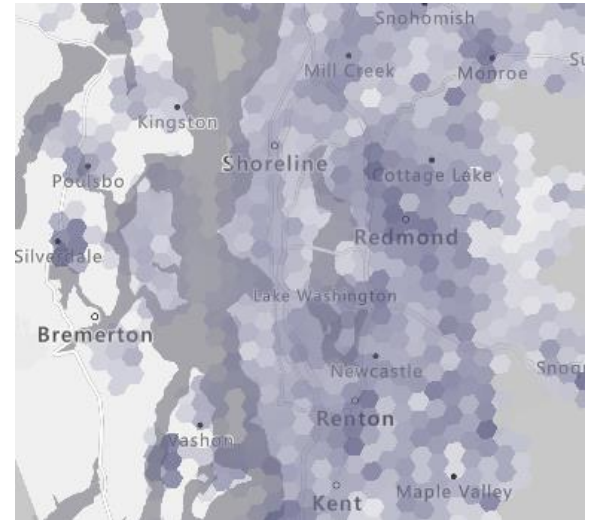
Option 5: Peach



Option 6: Light Blue

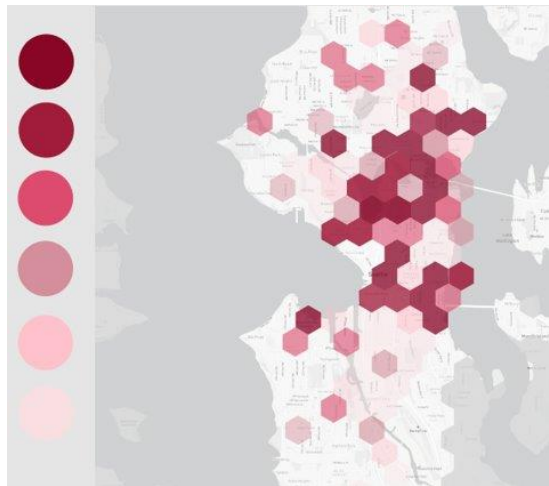


Option 7: Gold

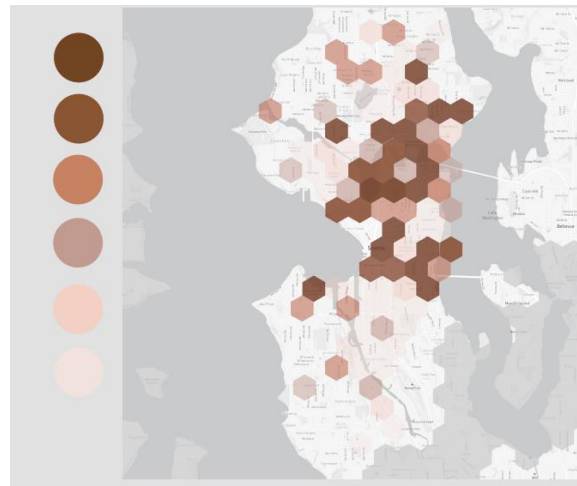


Option 8: Teal

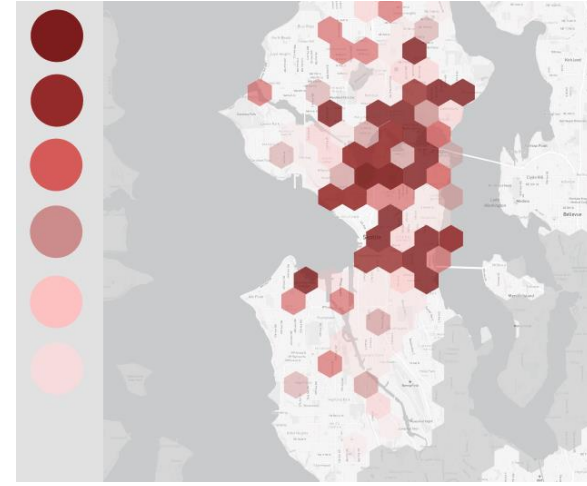
COLOR OPTIONS: Monochromatic



Color Vision: None



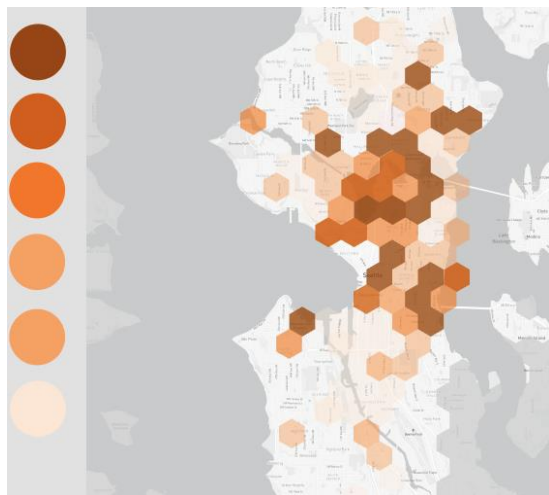
Color Vision: Deuteranomaly



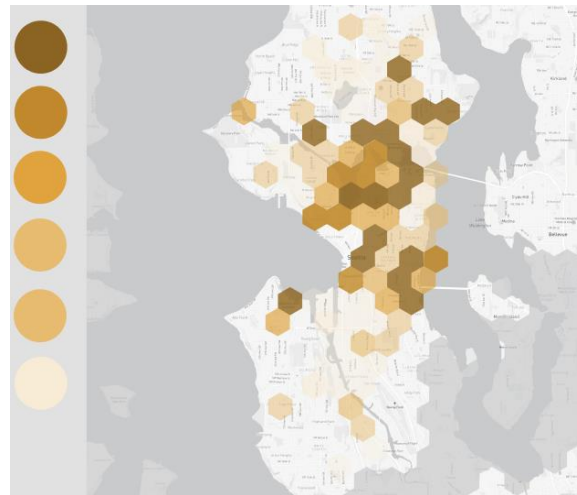
Color Vision: Tritanopia



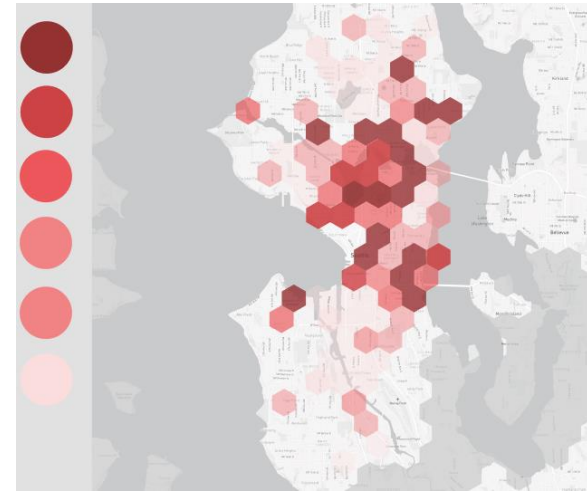
Color Vision: Protanopia



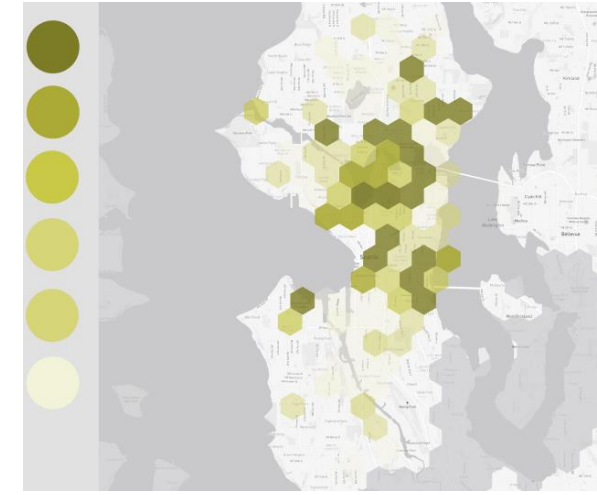
Color Vision: None



Color Vision: Deuteranomaly



Color Vision: Tritanopia

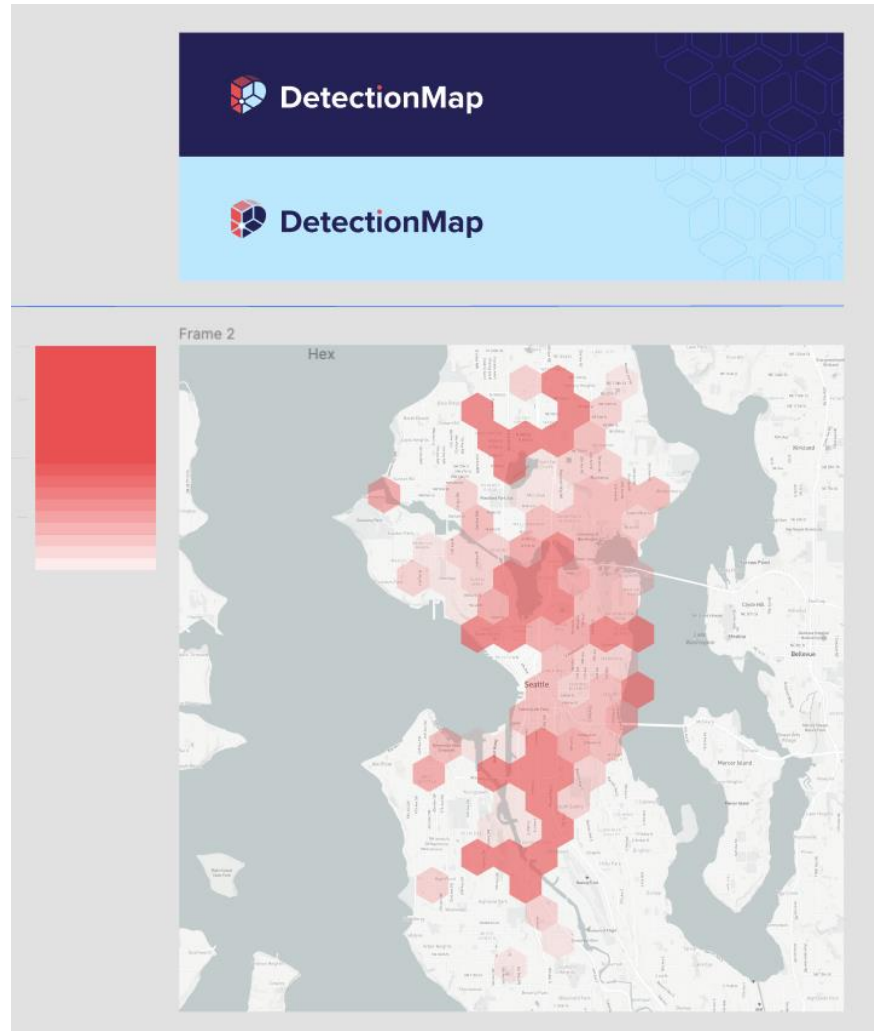


Color Vision: Protanopia

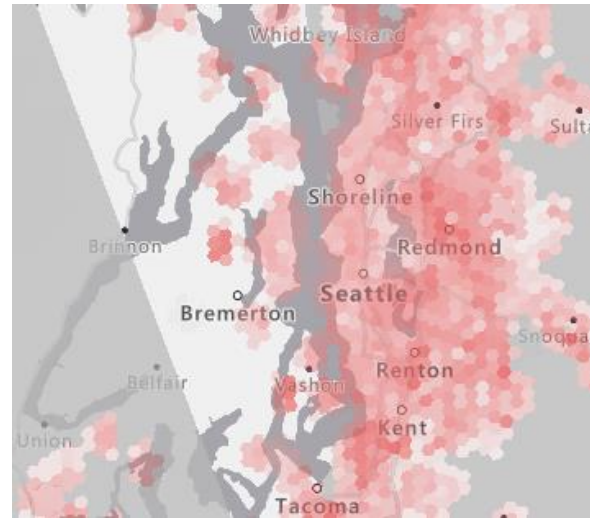
Problems

- Monochromatic of one color
 - Gradient is still needed to display decimal ranges inside of the [-6 to +6] spectrum
- Multicolor
 - Potential bias
 - Green/red solution: green means go, red means stop. Green doesn't mean go with COVID, still not safe
 - Color Vision Different Abilities
 - Multicolor solutions are very hard to see for people with different color visions
 - Gradient/Non-Gradient
 - If we want to include the range of [-6 to +6], we need a gradient. Gradients look messy for multicolor solutions

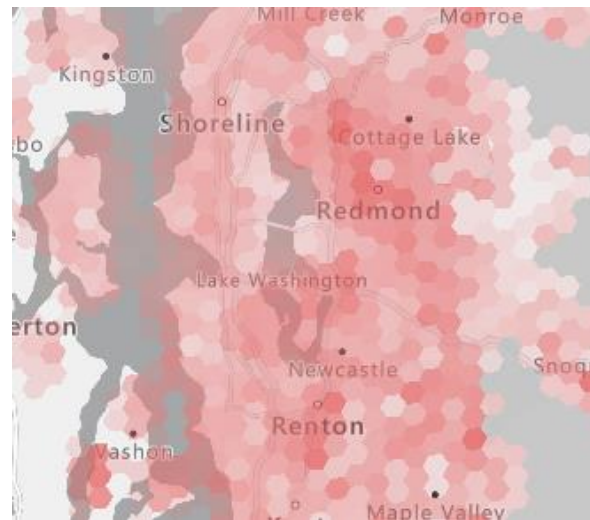
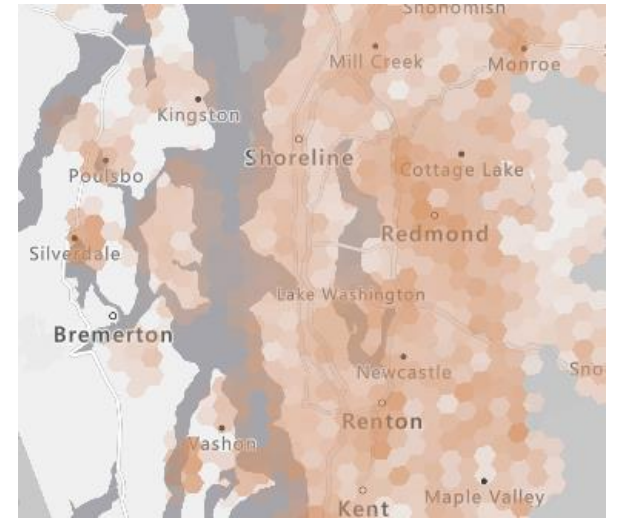
Solution: Peach



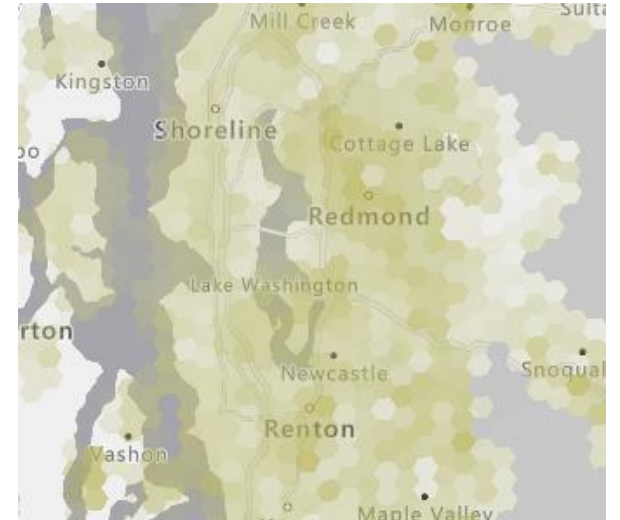
Color Vision: None



Color Vision: Deuteranomaly

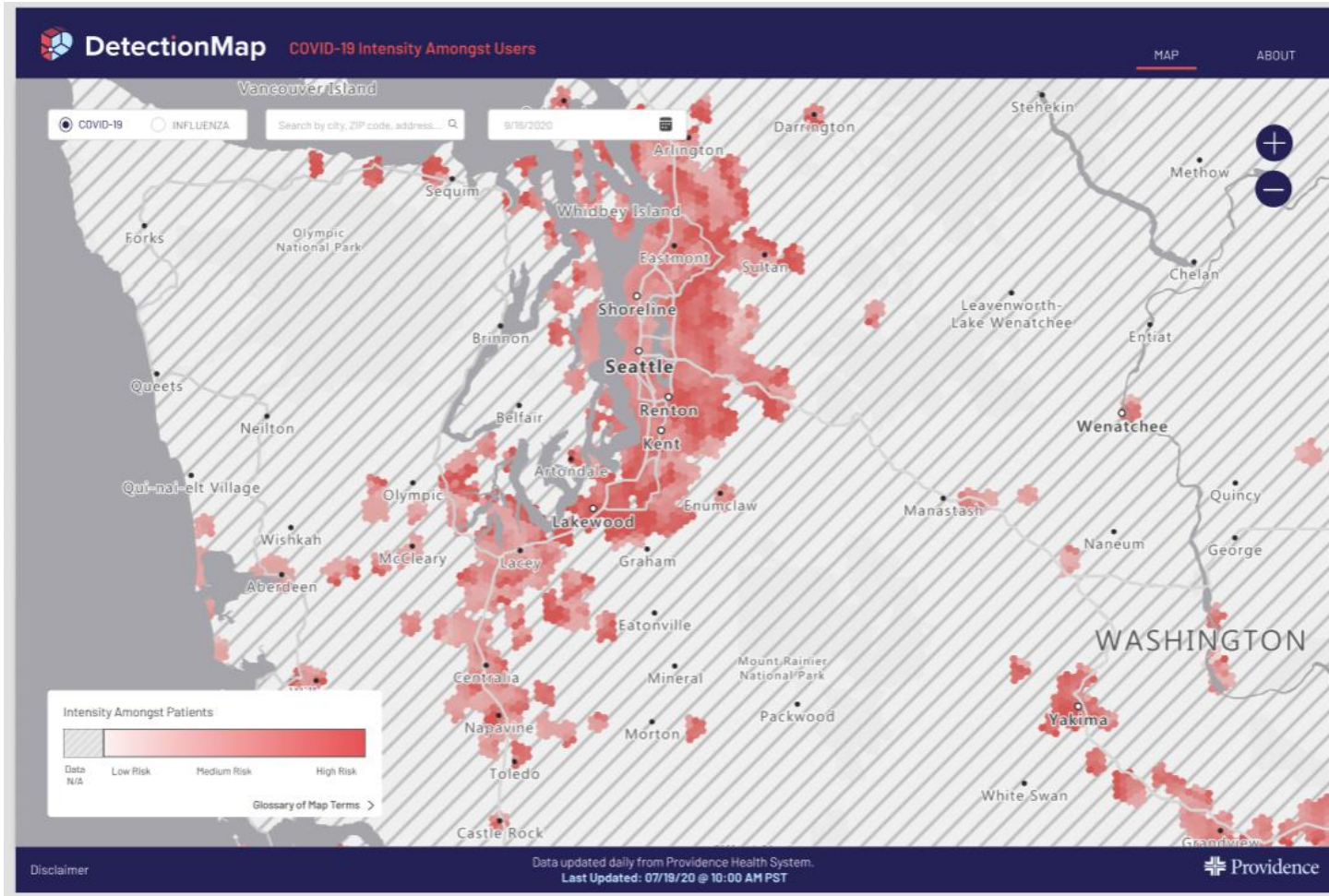


Color Vision: Tritanopia

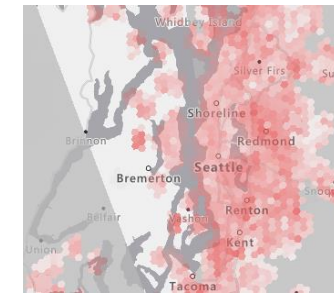


Color Vision: Protanopia

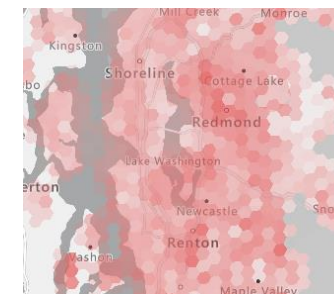
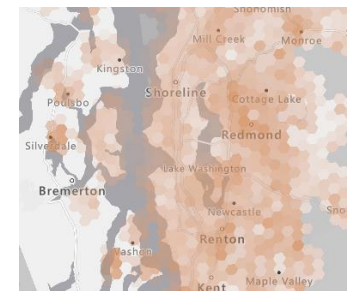
Solution: Peach



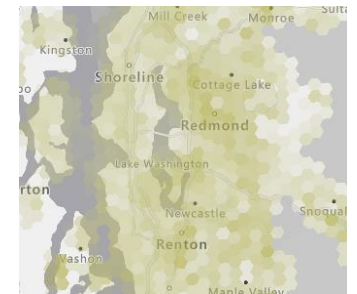
Color Vision: None



Color Vision: Deuteranomaly



Color Vision: Tritanopia



Color Vision: Protanopia

Design Decisions: Displaying Not Supported Areas

We want to clearly show areas where data is not available.

Current Implementation:

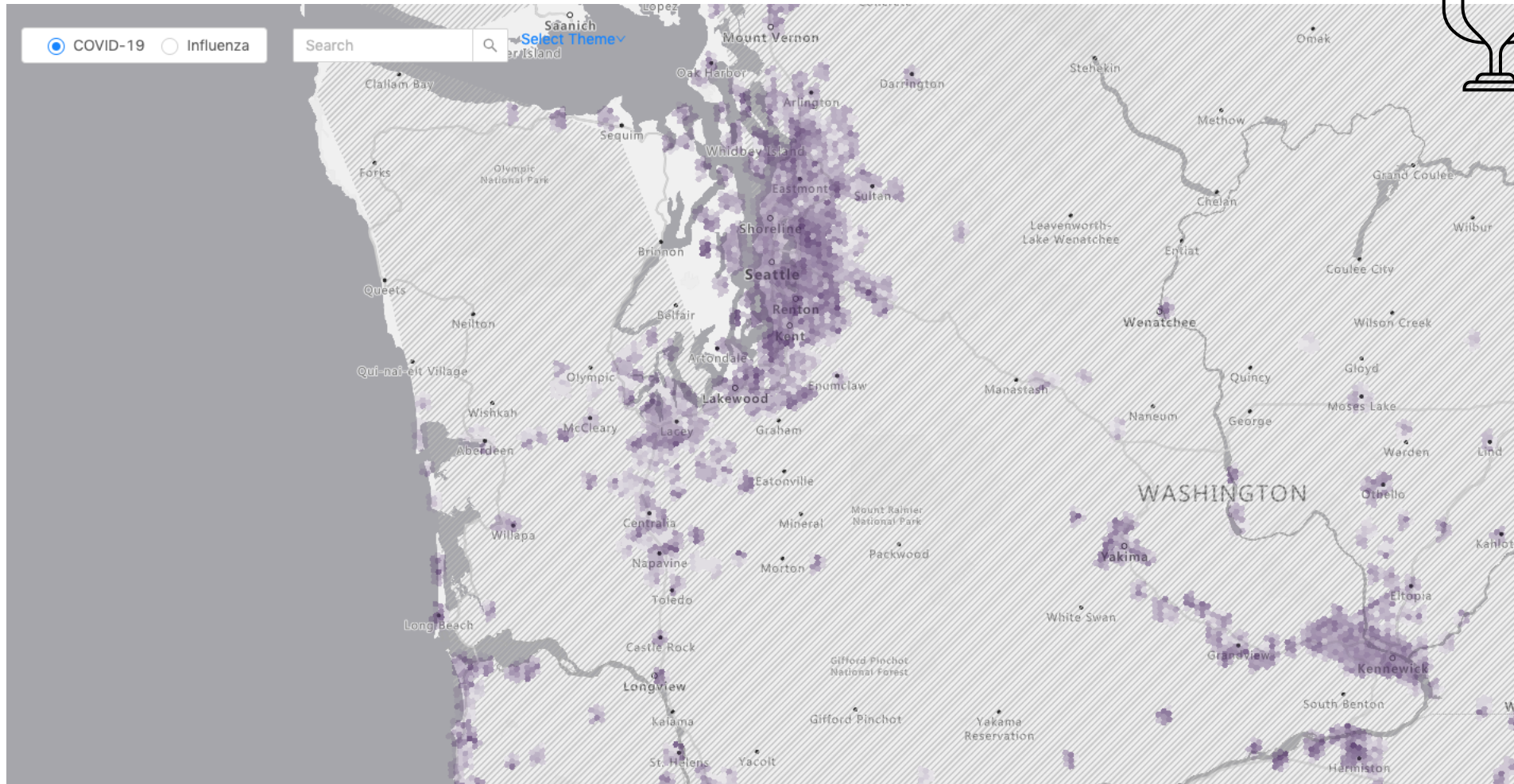
- Use Azure Maps "Grayscale Light" theme, and take advantage of white map to represent data not available

Current Problem:

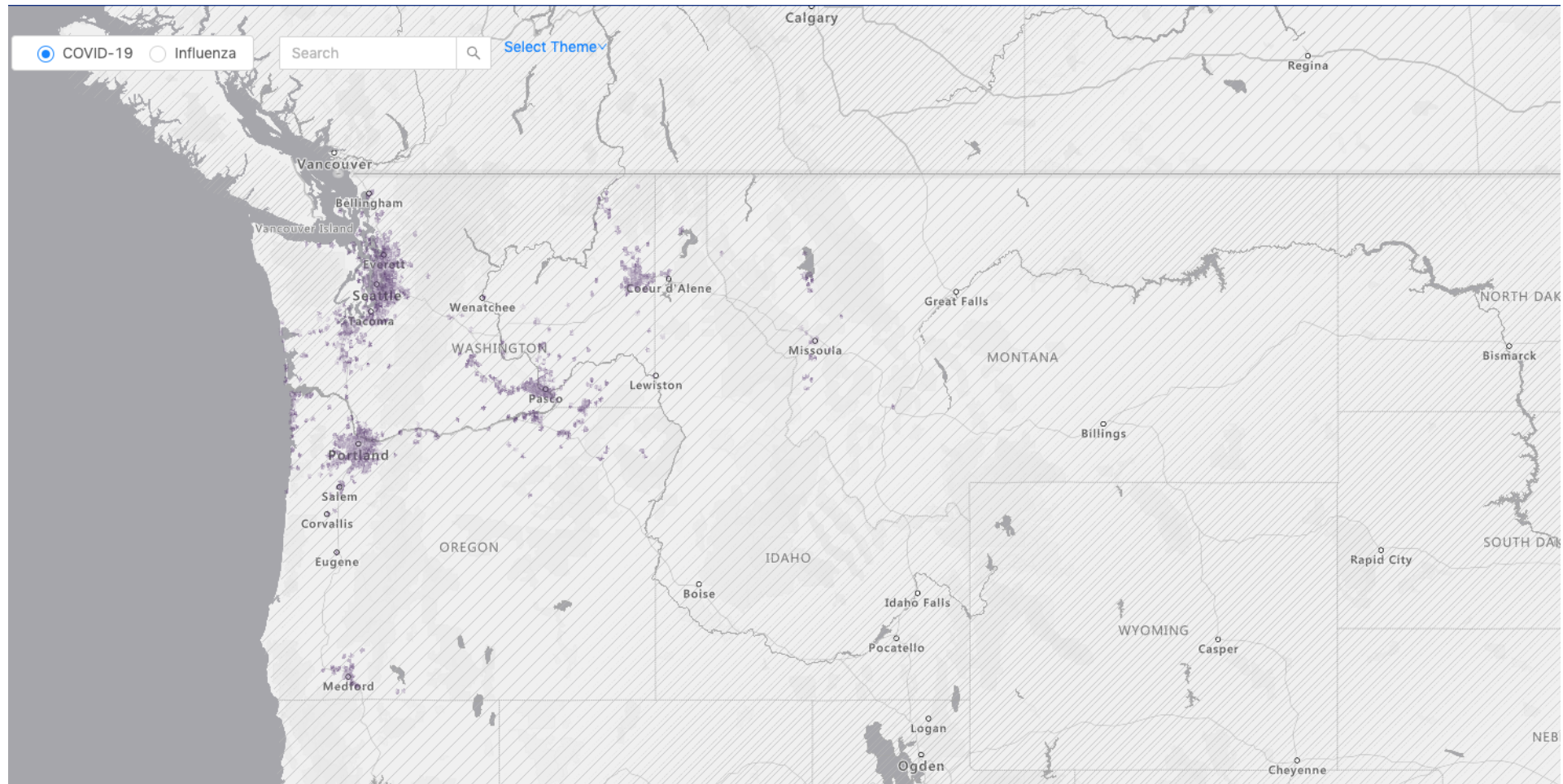
- Users interpret white to be map
- Users interpret white to be "clear" or "no COVID" since it is the lowest color on a single-color color gradient scale

Option 1: Thin Stripes

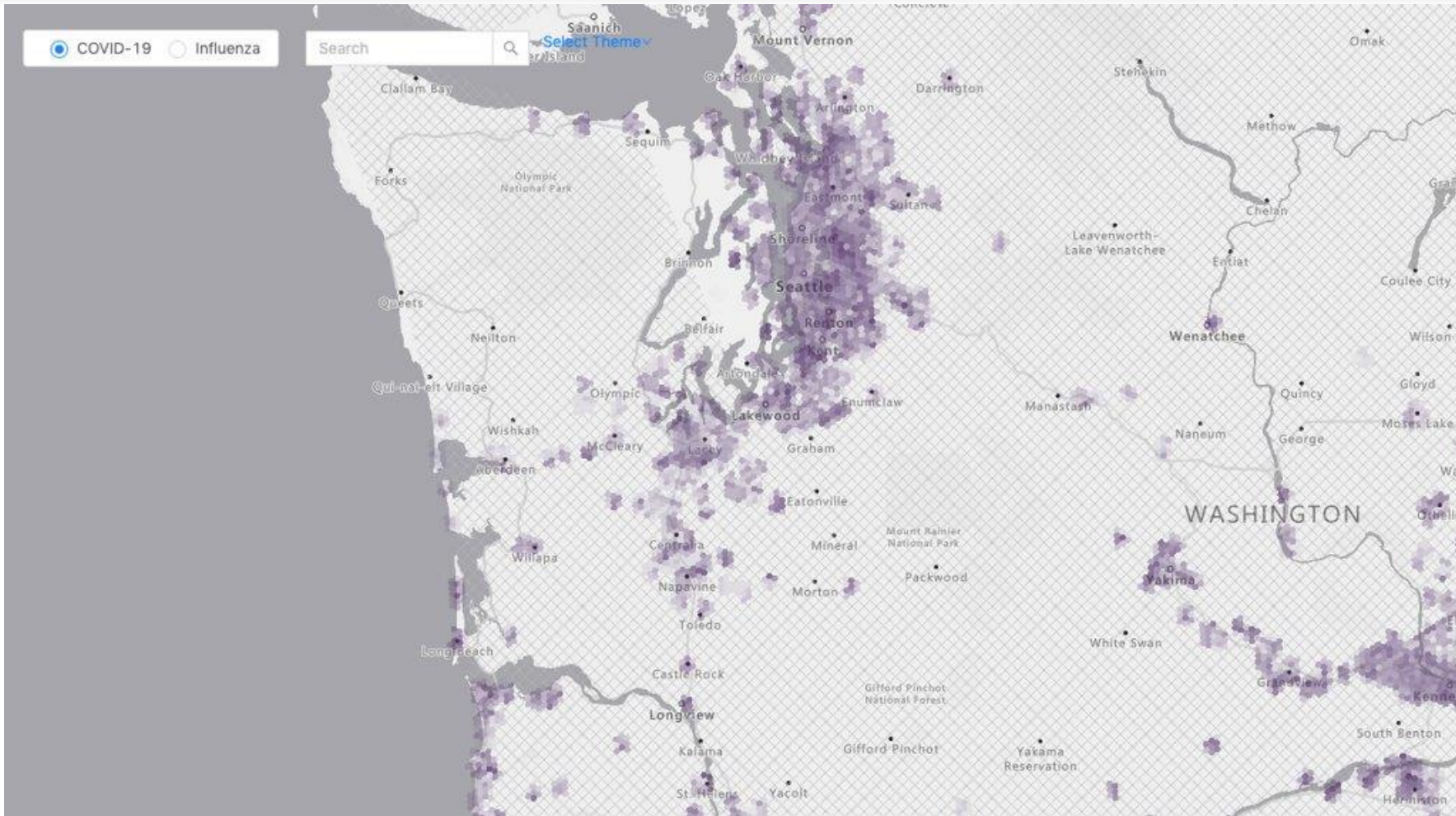
Final Decision



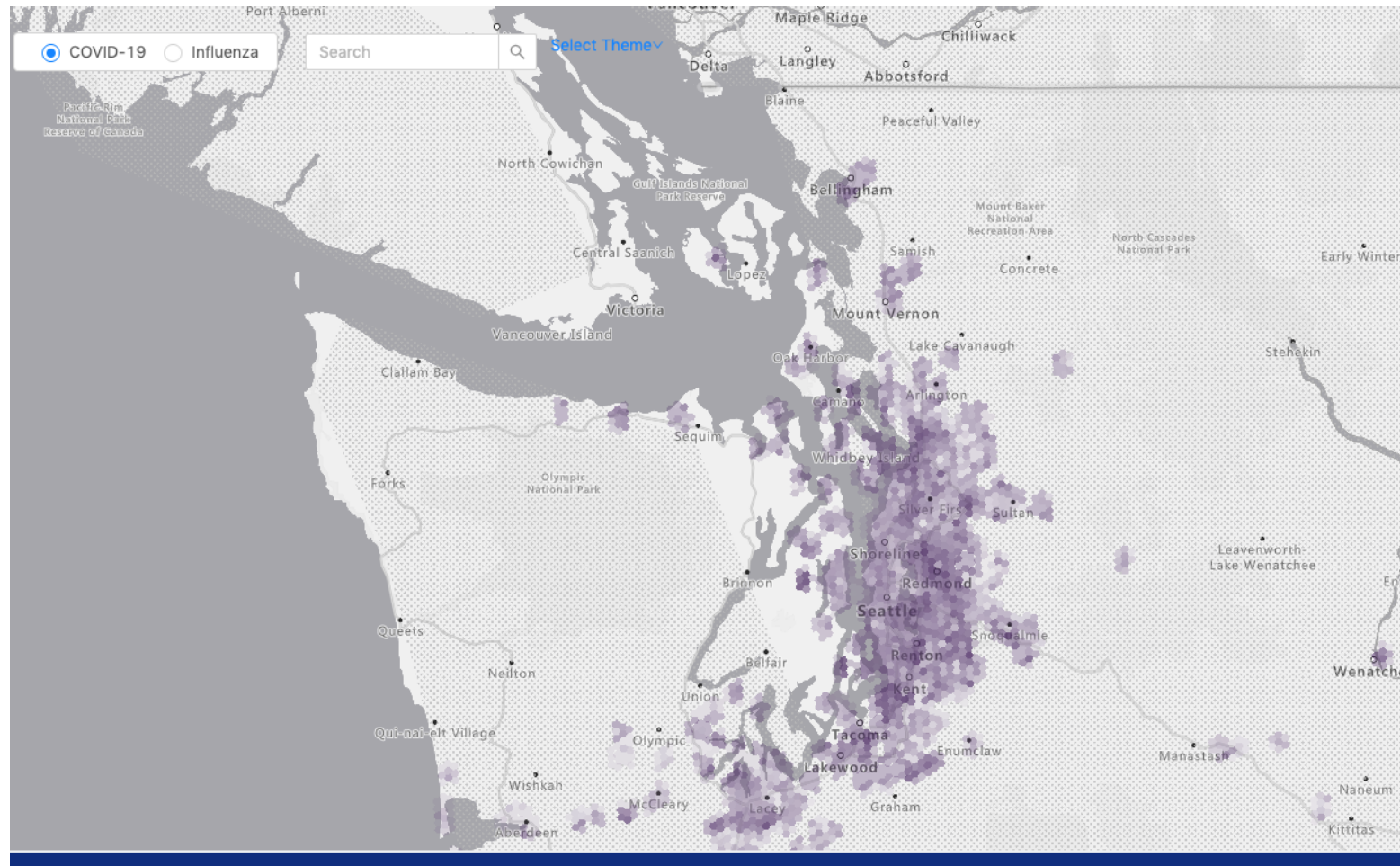
Option 2: Thick Stripes



Option 3: Squares



Option 4: Dots



Solution: Option 1- Thin Stripes

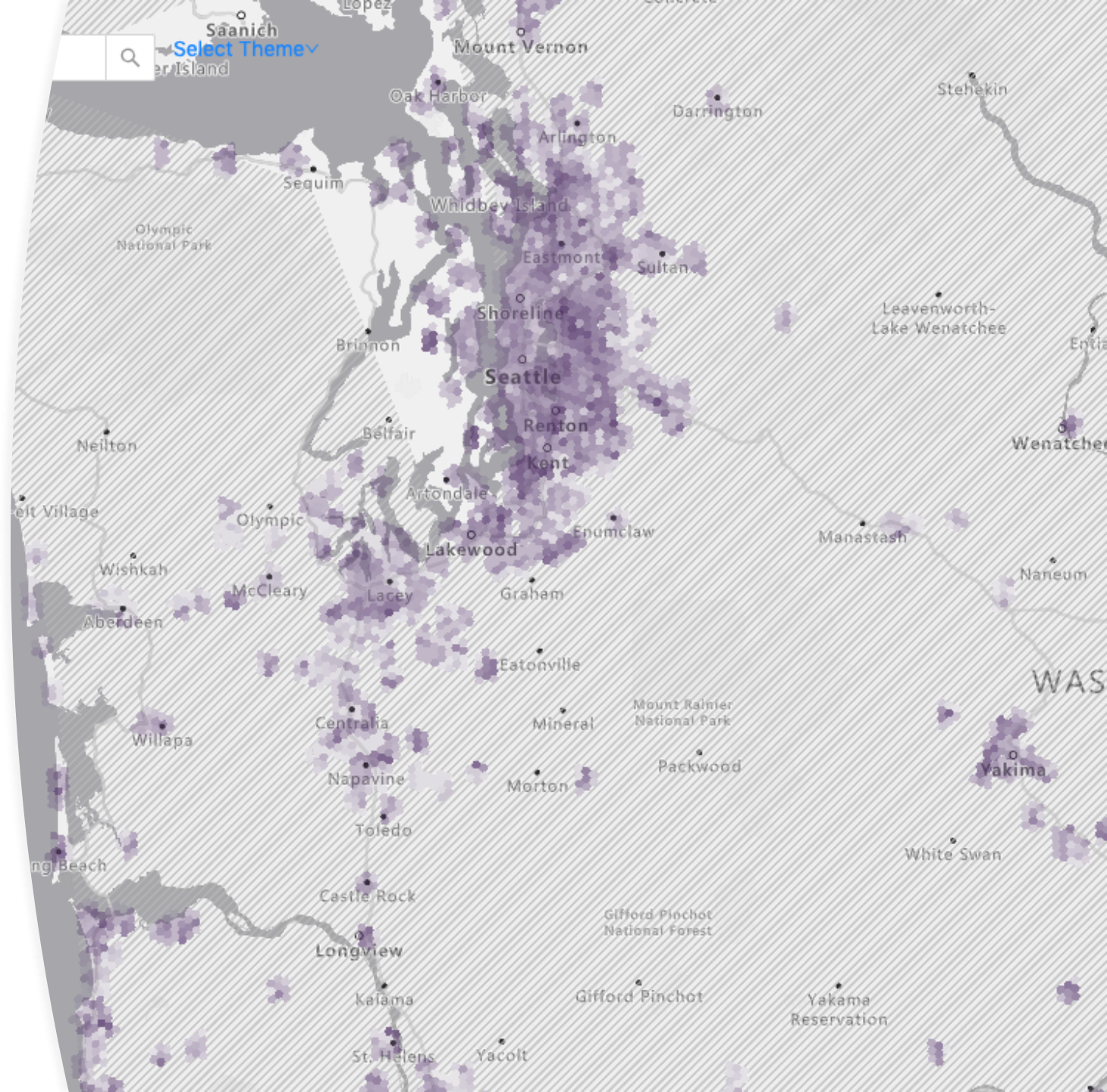
We want to clearly show areas where data is not available.

Problem: Users interpret white to be map

Solution: Use a layer instead of an Azure Maps theme, with a pattern

Problem: Users interpret white to be "clear" or "no COVID" since it is the lowest color on a single-color color gradient scale

Solution: Use gray (a color outside the color gradient) to show data not available



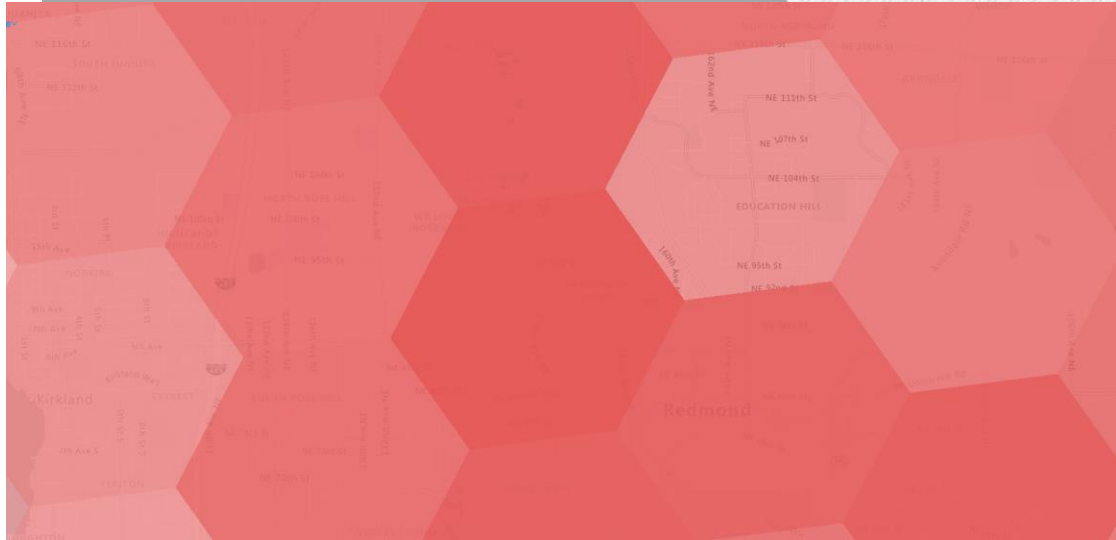
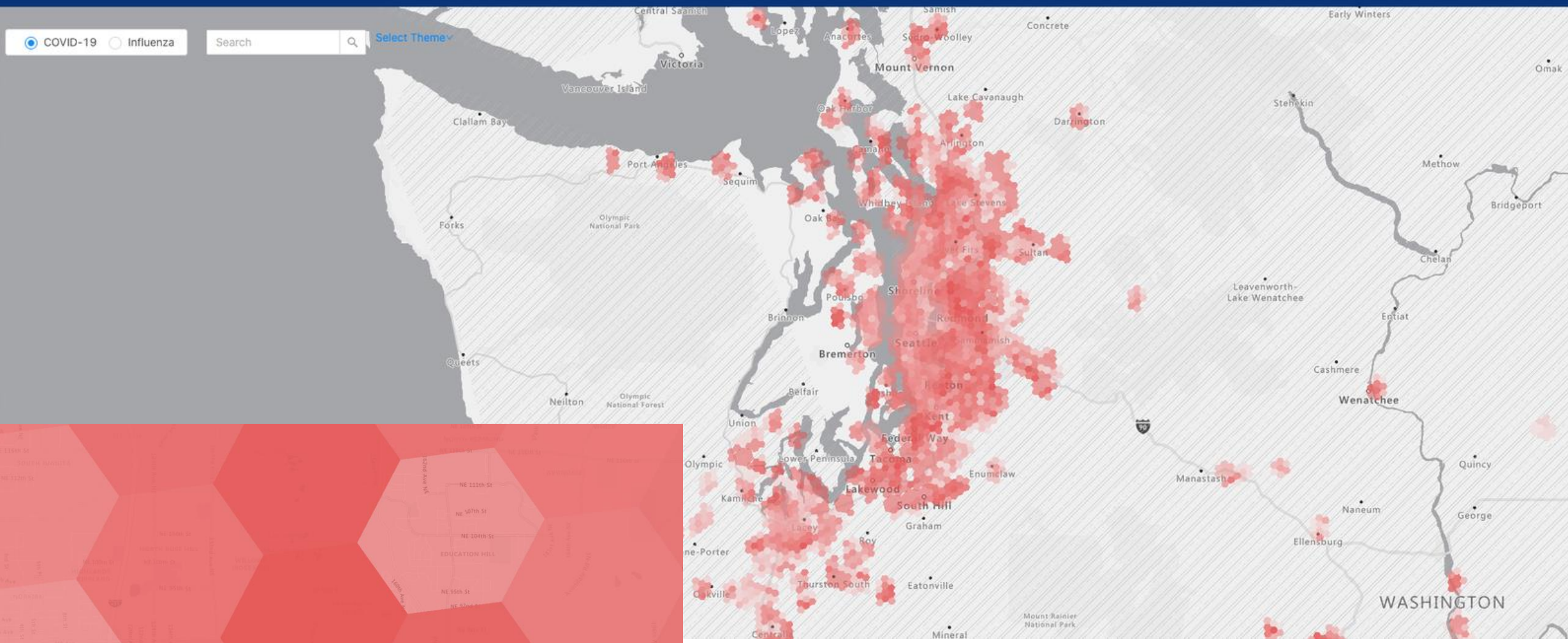
Design Decisions: Map Layering

The hexagons should do the following:

- Clearly displays COVID high intensity hot spots and low intensity spots so the user can distinguish them from each other
- Are distinct, but also have enough visibility for users to zoom in and out of different areas, as well as see neighborhoods

Solution: Find a good transparency setting which can achieve both goals

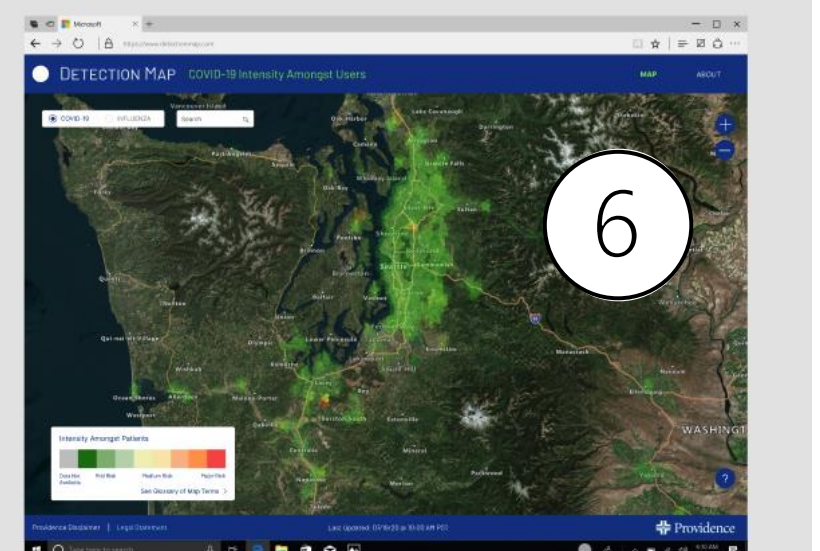
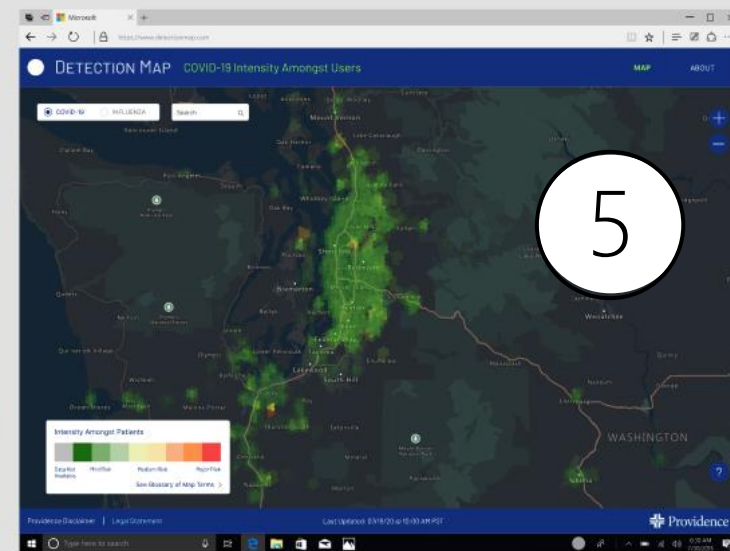
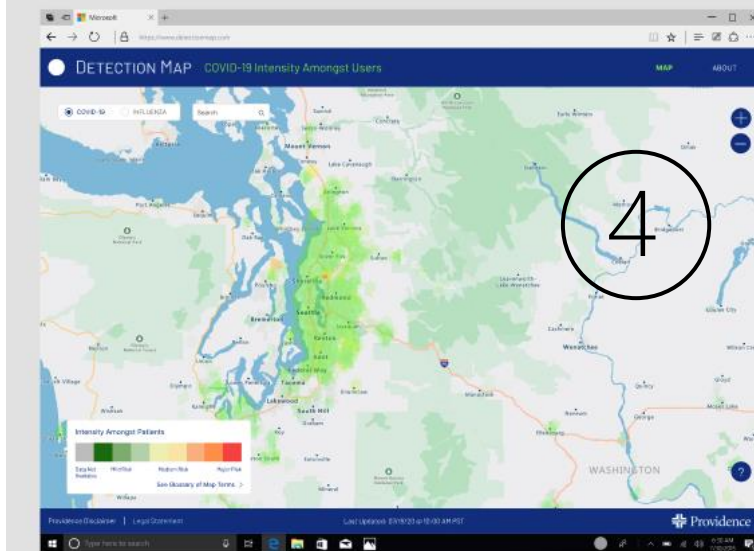
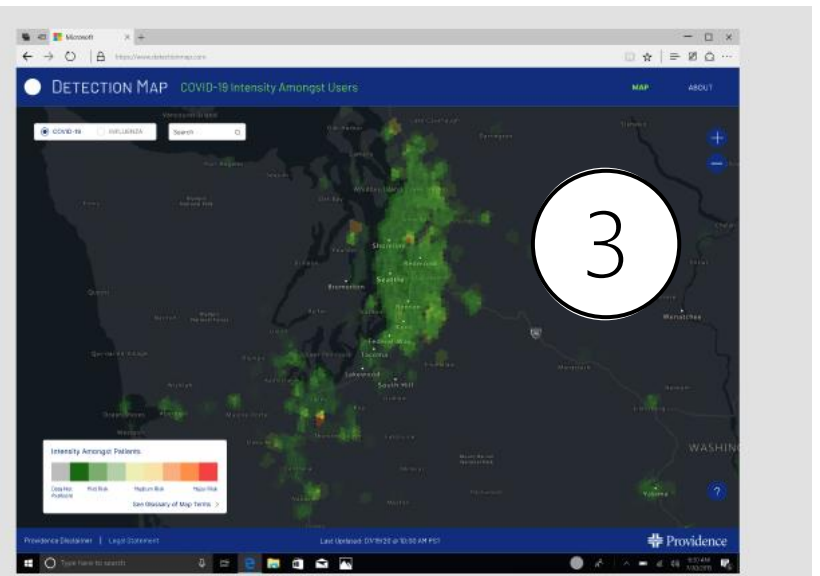
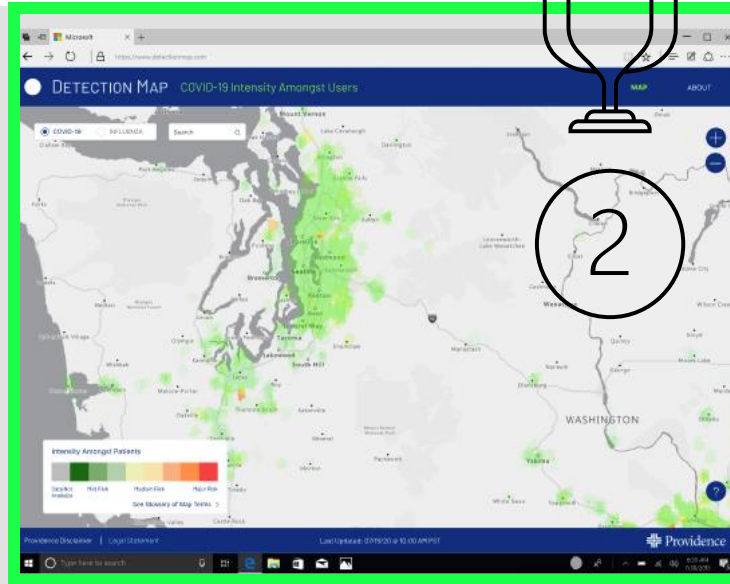
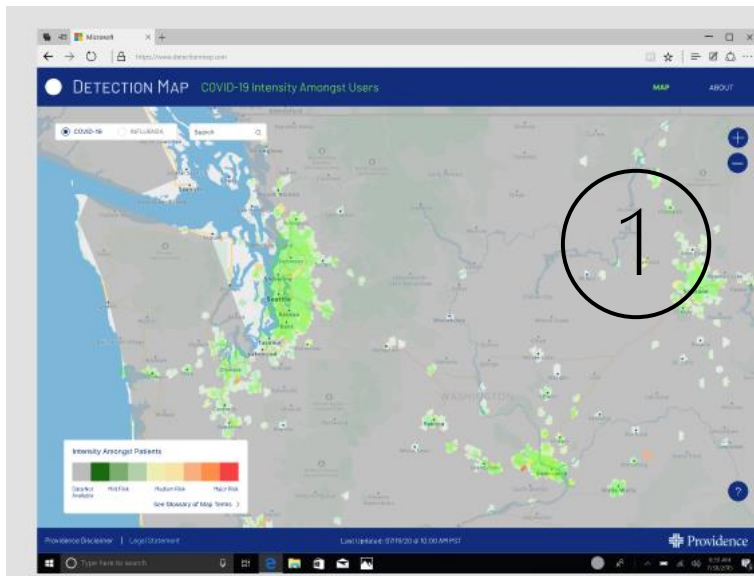
DETECTION MAP COVID-19 Intensity Amongst Users



Problem

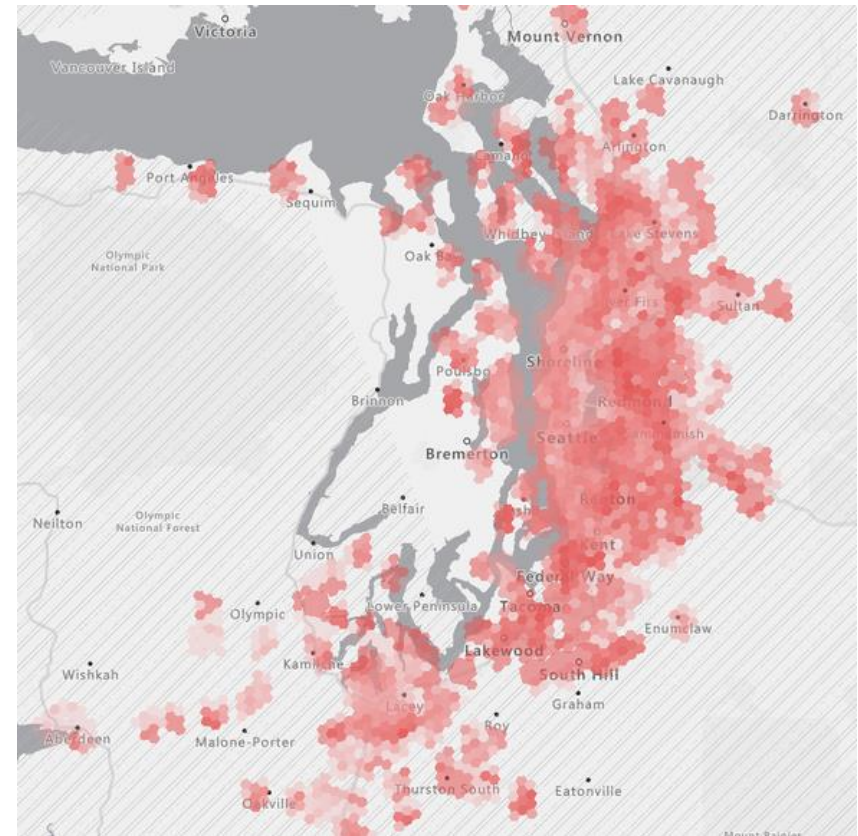
Azure Map Layers

Final Decision



Proposed Solution

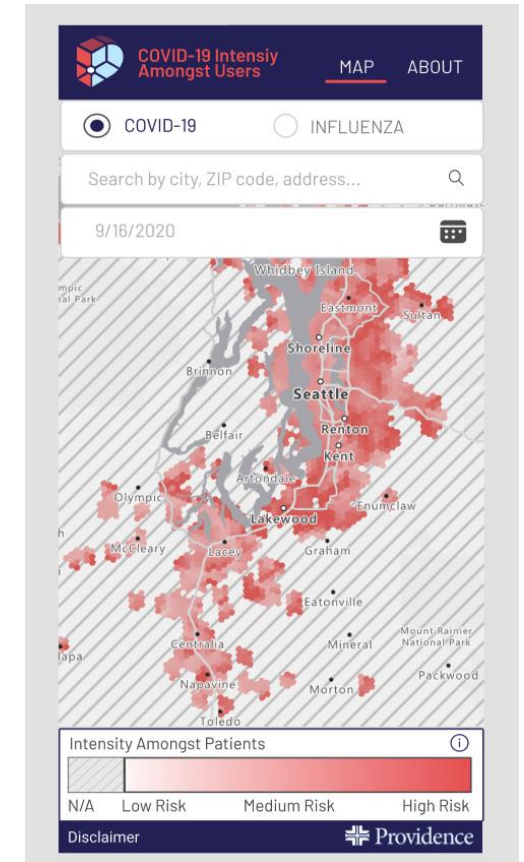
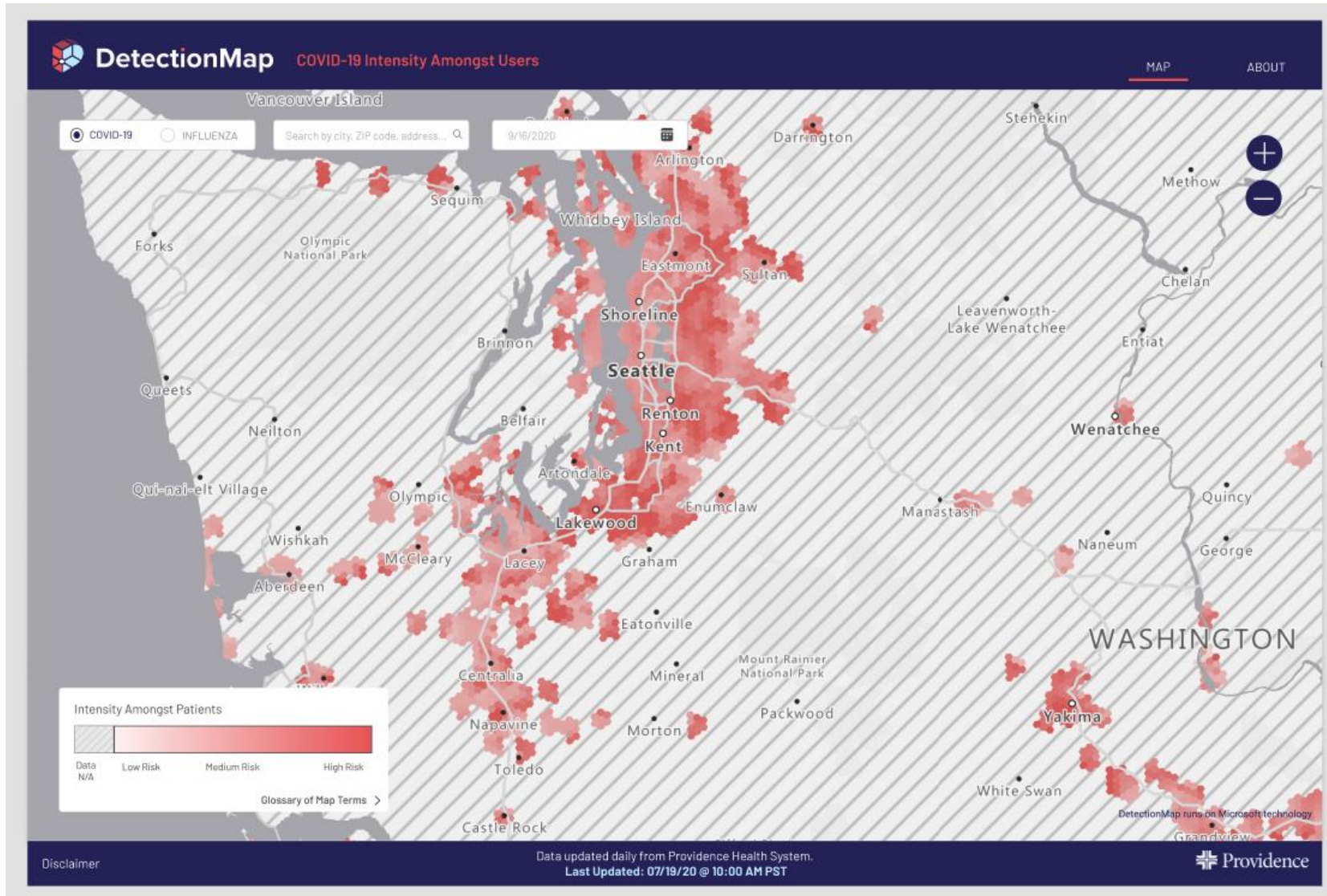
- Stay with Grayscale Light
 - Less distractions on the map
 - We are using a patterned overlay, so it isn't too much grey
- Other Map Themes
 - Too many colors
 - Green forests, yellow roads



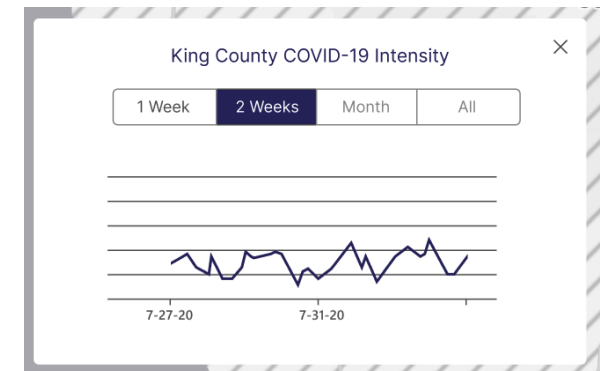
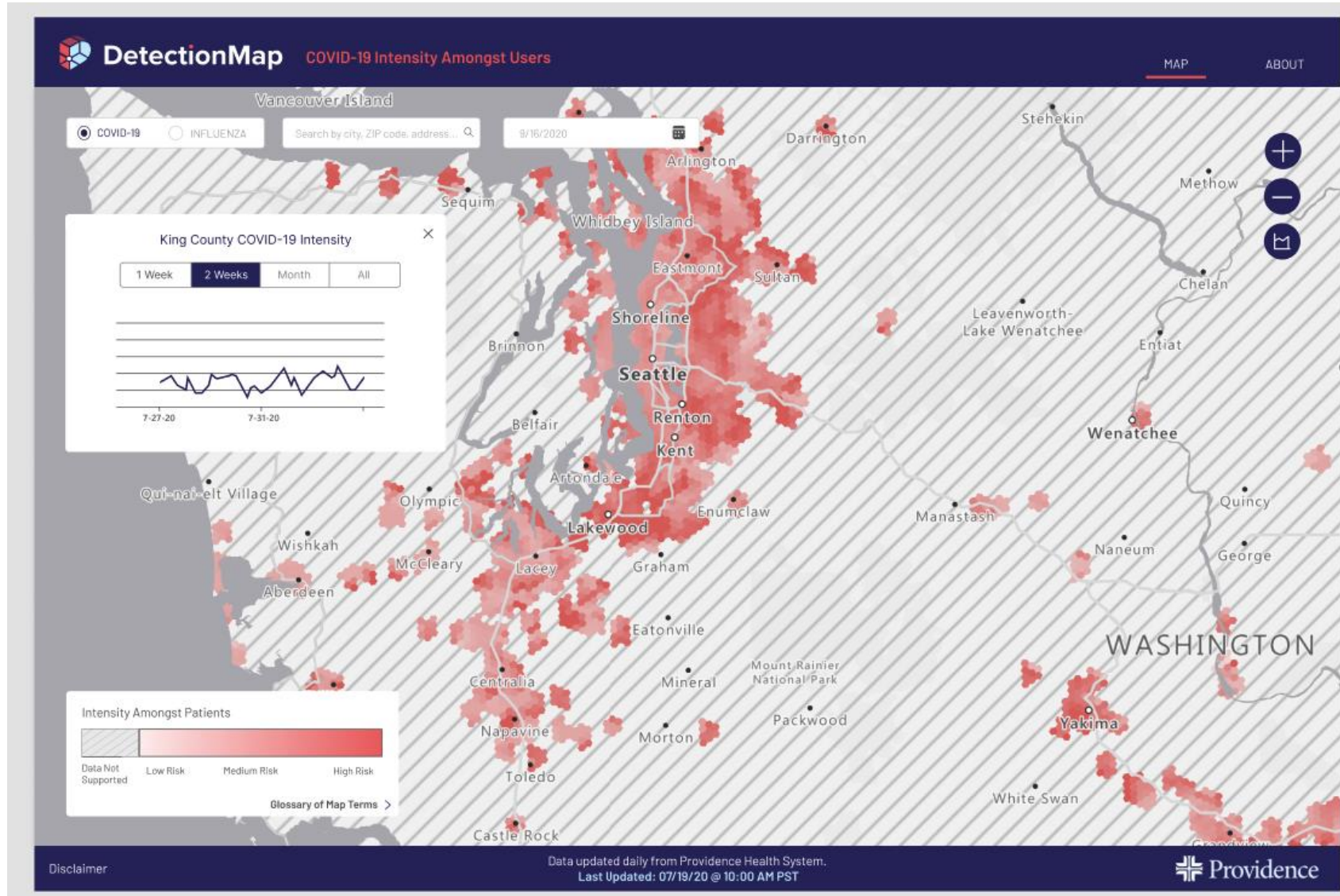
Final Design



Final Design



Final Design – Graph View



Pop Ups

Glossary of Map Terms

Colors represent the proportion of all patients seen at Providence in a specific area who had either the syndrome of interest or positive test result. The determination of where the data lives within this is based on the proportion of reported symptoms in each area that correlate to the specific infection.

Data Not Available:

Areas with insufficient data for accurate estimates

Low Risk:

Fewer number of patients with test or syndrome

Medium Risk:

Medium number of patients with test result or syndrome

Major Risk:

Large number of patients with test result or syndrome

Welcome to Detection Map!

Welcome to DetectionMap, an infection awareness tool brought to you by Providence. Our goal is to provide up-to-date information regarding the prevalence of symptoms relating to specific diseases in your community. Updated every 24 hours, this heat-map style visualization showcases where both COVID-19 and INFLUENZA like illness symptoms are being experienced.

Start by searching your region of interest in the search bar above.

[See About Page for More](#) >

Disclaimer


DetectionMap data and visualizations are not intended to provide guidance on decision making by individuals or government entities. The information presented is based on analysis by Providence and does not contain all symptom data available in a specific region. Providence makes no claims, no representations, and no warranties, express or implied, concerning the validity (express or implied), the reliability or the accuracy of the data, including the implied validity of any uses of such data. The data provided in this site are provided for informational purposes only. Providence is not responsible for the misuse or misrepresentation of the data. Its about supporting patients, caregivers, and the community.

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About

MAP ABOUT

About DetectionMap

What is DetectionMap?

The COVID pandemic has brought with it a steady state of uncertainty. It has also brought a new and richer set of data that has provided the public with a view of infection and mortality rates in the world in which we live. With a goal of getting more valuable data in the hands of the public, DetectionMap aims to reduce this uncertainty by providing the current state of health in the areas Providence serves. Updated every 24 hours, the DetectionMap displays where symptoms most highly correlated with COVID-19 and INFLUENZA like illness are spreading.


How does DetectionMap work?


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FAQ

- Who created DetectionMap?

DetectionMap was created through a collaboration of Providence Health and Microsoft. Read more about the strategic alliance of these two companies, [HERE](#).
- What is DetectionMap?

Disclaimer 

MAP ABOUT



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- What is the goal of DetectionMap?

Sharing

Share these maps!



DetectionMap runs on Microsoft technology

Disclaimer 