Ngoné Lo
Visualization Project #3 Process

Final Infographic: https://my.visme.co/view/8re9w8op-covid-19-uhc-timeline

Context and Approach

If you or one of your loved ones has an underlying health condition, you have probably gone through a stage of worrying or fact-hunting about how [much more] dangerous COVID-19 could be for you or your loved one. Hence, you are my audience! My sister has a congenital heart disease. My family lives in Senegal where there was little to no school closure during the COVID-19 pandemic. At some point, I found myself continuously trying to reassure my mom that it was okay to let my sister go to school despite the risks. My mom believed [and probably still believes] that COVID-19 would 100% claimed the life of her younger daughter if she ever got infected. As the "*number person of the family*", my mom was expecting me to come up with numbers and data-driven proofs in order to make my point; that not everyone with an underlying health condition will die if they get infected with COVID-19. I am not trying to prove or even insinuate that COVID-19 is not dangerous, especially for people with underlying health conditions. However, it always better to let facts and data speak rather than empower fear. That is my personal motivation for working on this on this project.

My main goal is to create an educational and data-driven visual representation on how severe COVID-19 could be for people with underlying health conditions and what to expect [symptoms and comorbidity conditions]. I worked on a statistical infographic that is a visualization extension of the *TriNetX 2019-nCoV Real-World Data Report USA, Issue 10* published on March 29, 2021. Periodically updated, the TritnetX Report summarizes critical information about the characteristics, treatments, and outcomes of COVID-19 patients identified in the TriNetX network using tables. I will attempt to make the TriNetX Report more inclusive, especially for people in our target audience not very-well versed in or comfortable with raw [summary] statistics and tables.

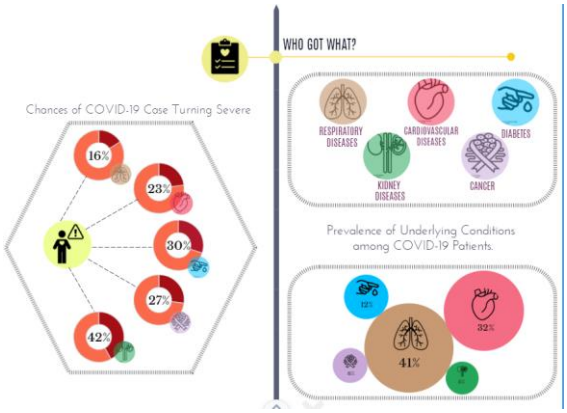
Moreover, language barrier is something I want to minimize. That is why I am going for an infographic. I visualized the summary data of the *Prior/Coexisting Conditions of COVID-19 Patients* and the *Clinical Characteristics During COVID-19 Episode* tables for my infographic. I also extended the infographic storyline with COVID-19 comorbidities using data from the CDC. Furthermore, on top of using color-blind friendly palette whenever possible, I also tried to make use of meaningful color-object associations [e.g. blue for diabetes, red for cardiovascular diseases, lavender for cancer, yellow for sickness, gray for death] and icons [from the noun project] to represent the diseases and symptoms. One of my inspirations is a Jeune Afrique infographic, Profil de la Classe Moyenne en Afrique (Profile of the Middle Class in Africa). I think it is pretty much self explanatory and its main key points can be understood/guessed by non-French speaking people despite the language barrier. I also took inspiration from visualizations from the Visual Capitalist.

I used visme along with visualizations created using Python to build my statistical infographic under the form of a timeline resembling a scrollytelling. I adopted this approach in order to walk my audience through the points with more ease and less [temporary] clutter and extraneous cognitive burden.

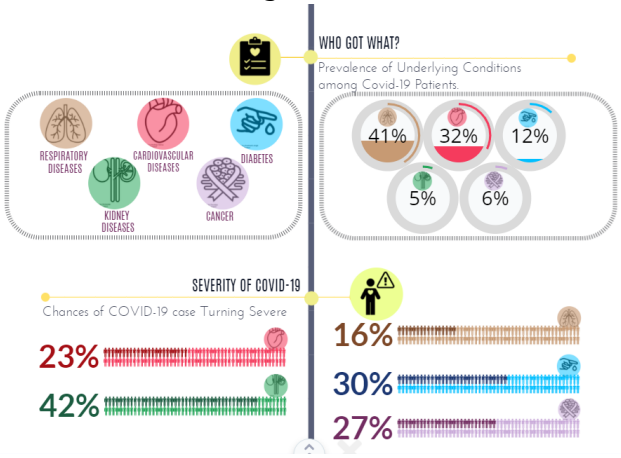
Part 1: Visualizing The Underlying Health Conditions Designs

For the first part I mostly made all the designs using visme. I opted for **Design #3** for **Part 1**.

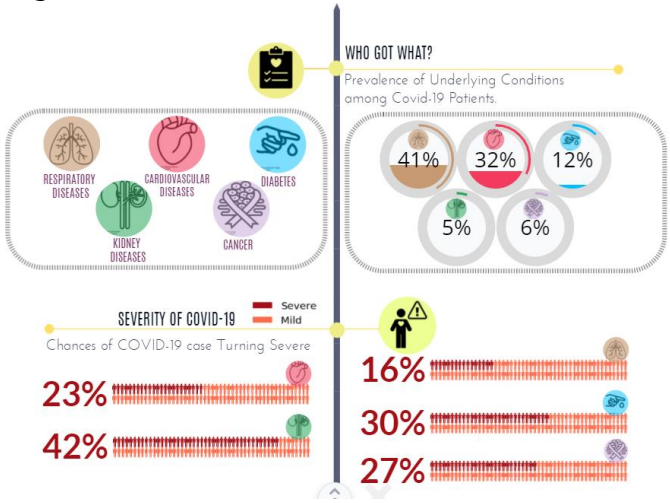
Design #1



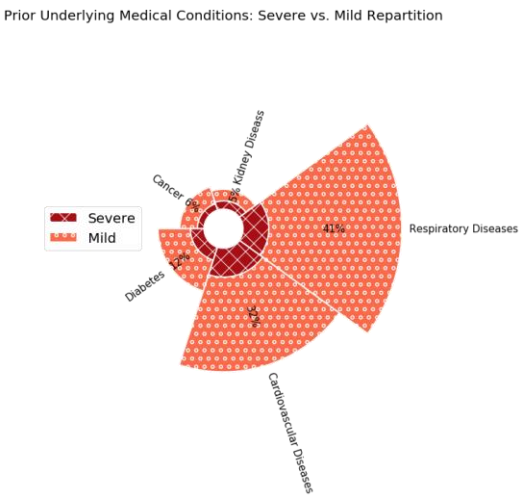
Design #2



Design #3



Design #4

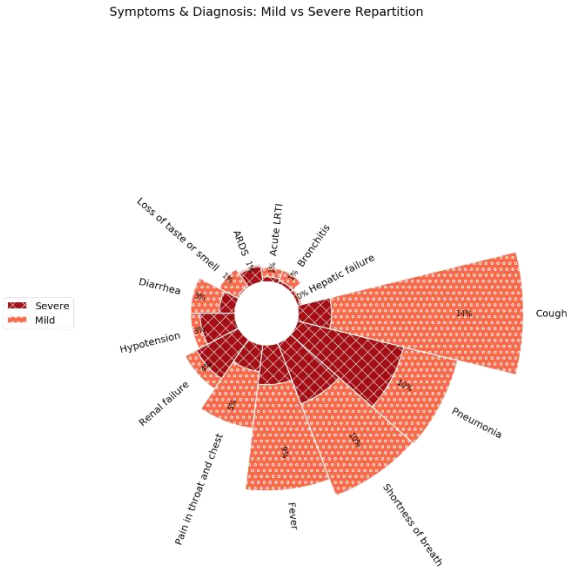


Additional designs for **Part 1** are available in the Jupyter Notebook

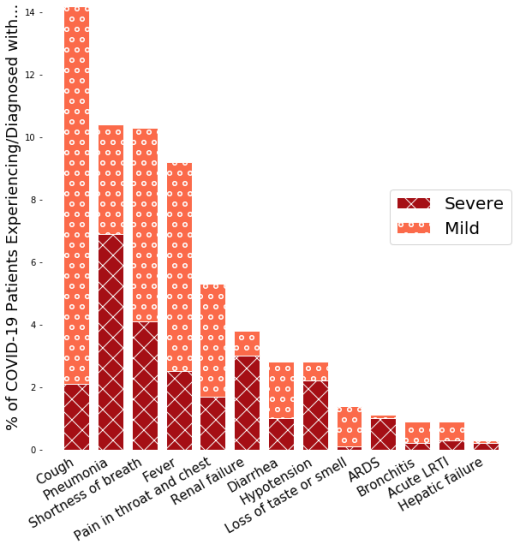
Part 2 : Visualizing The Symptoms & Diagnosis

For the second part, I made all the designs using Python. I opted for **Design #1** for **Part 2**.

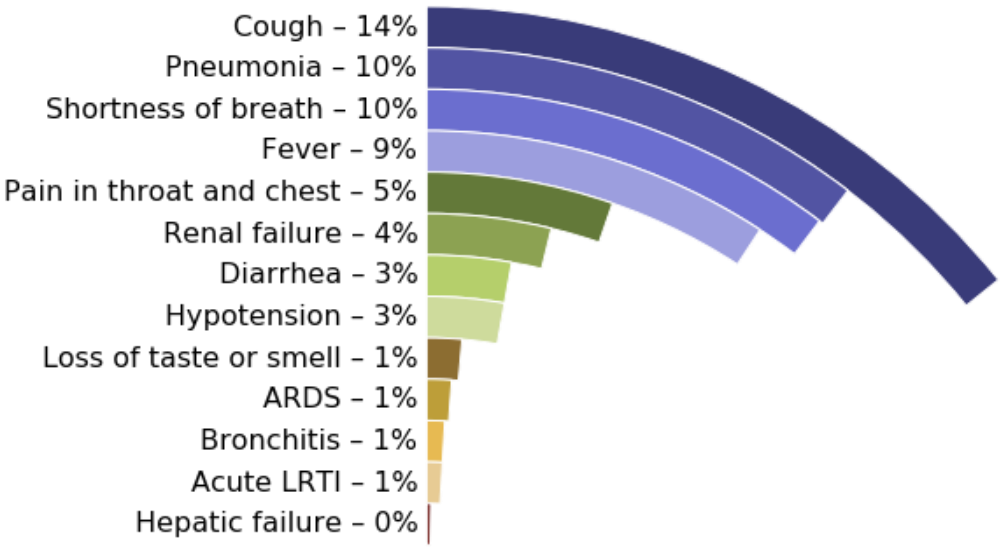
Design #1



Design #2



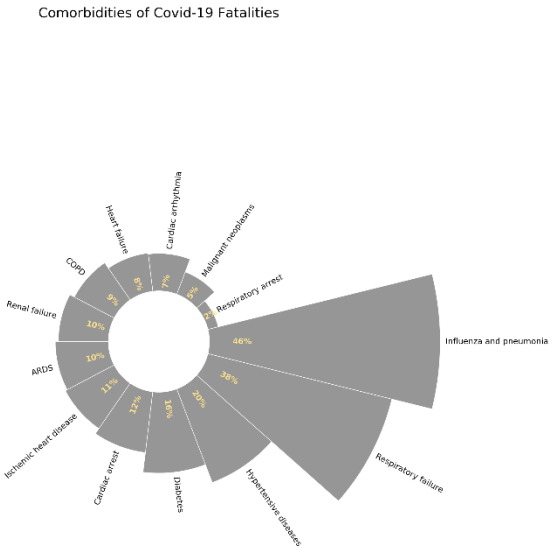
Design #3



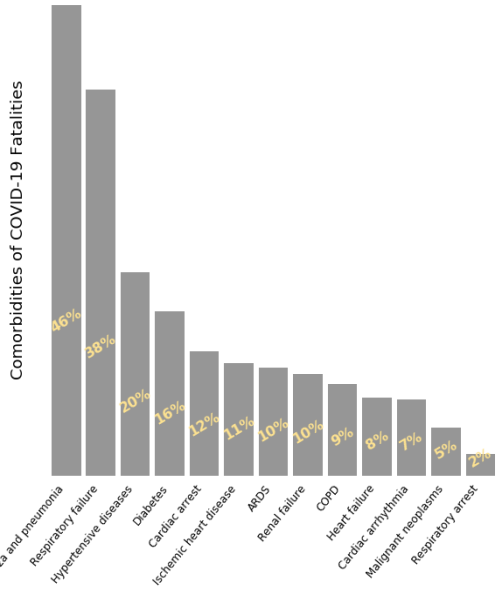
Part 3: Visualizing The Comorbidities

For the third part, I made all the designs using Python. I opted for **Design #4** for **Part 4**.

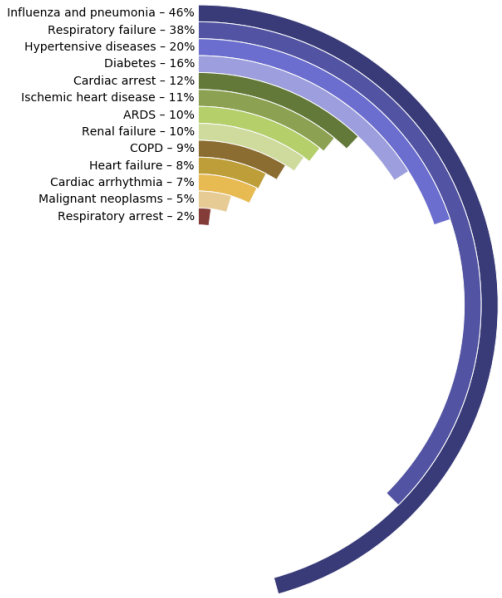
Design #1



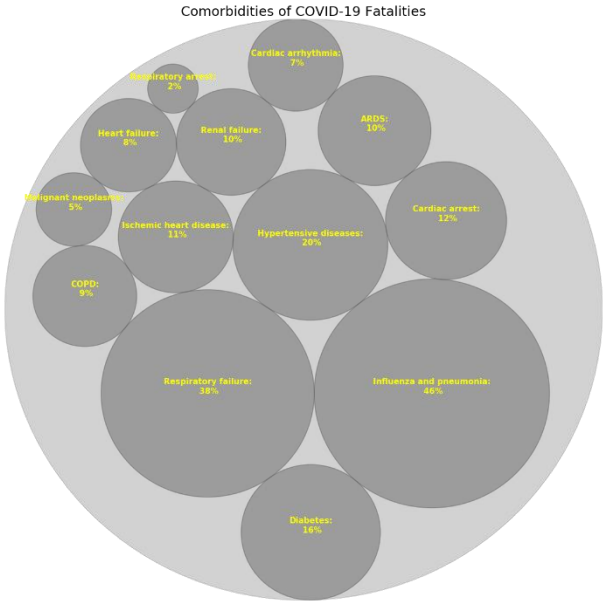
Design #2



Design #3



Design #4



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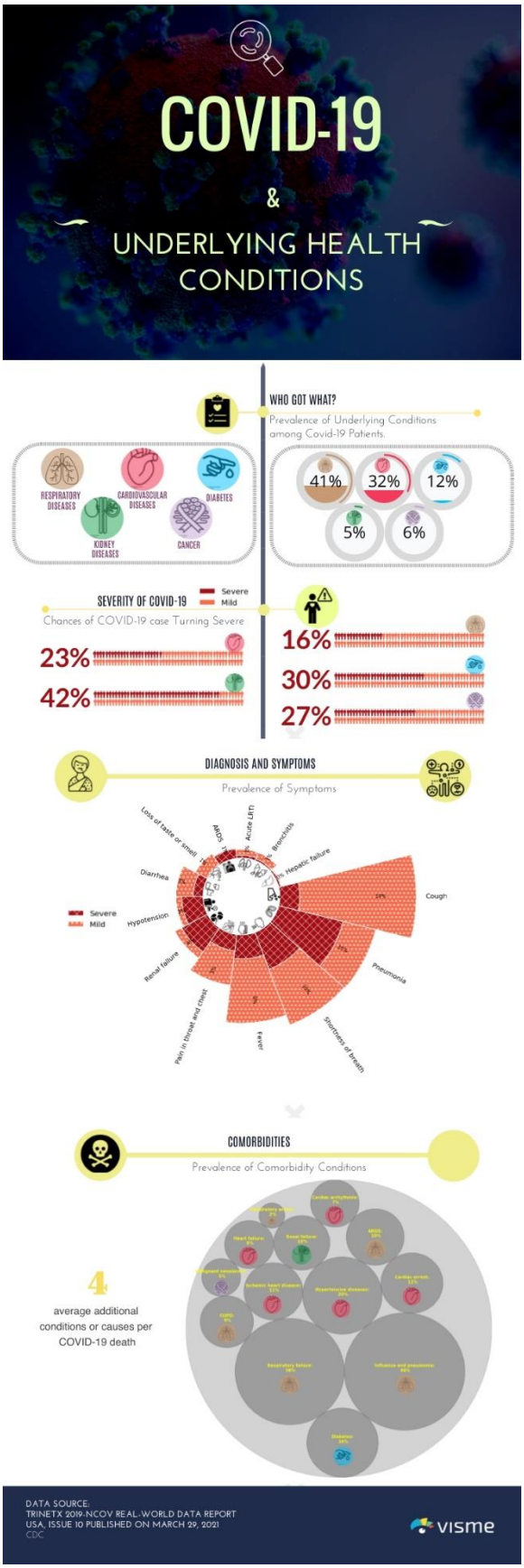
COVID-19
&
UNDERLYING HEALTH CONDITIONS
WHO GOT WHAT?
Prevalence of Underlying Conditions among Covid-19 Patients.
RESPIRATORY DISEASES
CARDIOVASCULAR DISEASES
DIABETES
KIDNEY DISEASES
CANCER
41%
32%
12%
5%
6%
SEVERITY OF COVID-19
Severe
Mild
Chances of COVID-19 case Turning Severe
23%
42%
16%
30%
27%
DIAGNOSIS AND SYMPTOMS
Prevalence of Symptoms
Loss of taste or smell
Diarrhea
Hypotension
Renal failure
Pain in throat and chest
Cough
Pneumonia
Shortness of breath
COMORBIDITIES
Prevalence of Comorbidity Conditions
4
average additional conditions or causes per COVID-19 death
DATA SOURCE:
TRINETX 2019-NCOV REAL-WORLD DATA REPORT
USA, ISSUE 10 PUBLISHED ON MARCH 29, 2021
CDC
visme