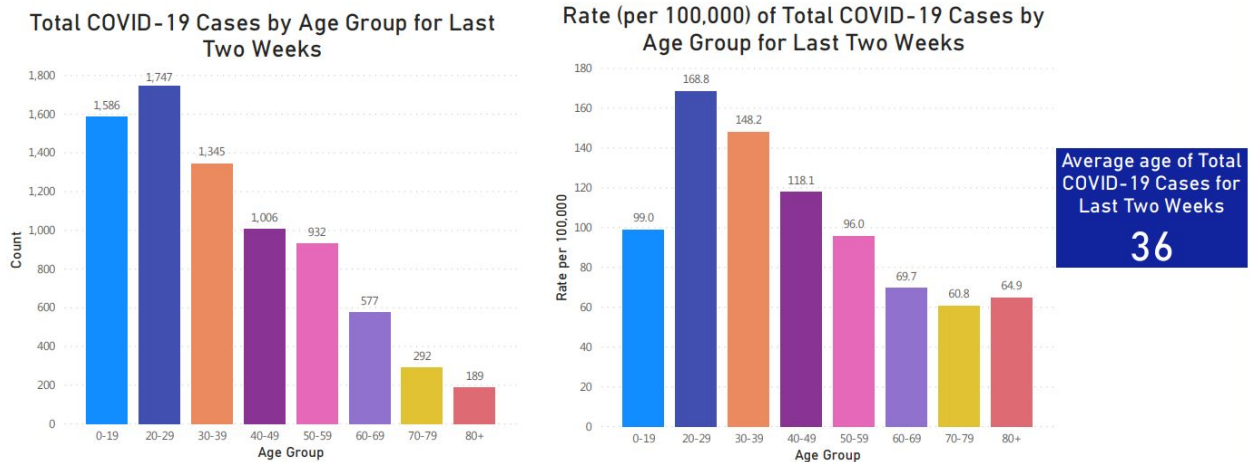Ale Curiel - Research First Draft

For this project I am limiting my research to the city of Boston, specifically to college students. I want to create an app that will give college students easy access to the information they need to keep themselves safe.
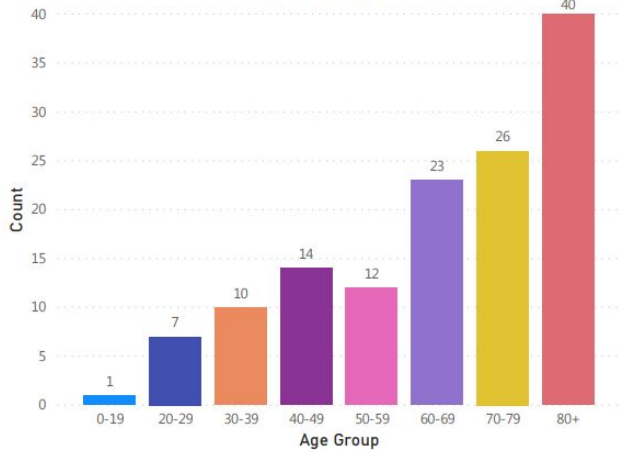

For this task I started researching the Massachusetts department of Public health to find out the number of cases in the past few weeks based on age groups and then comparing those numbers to the number of hospitalizations and the number of deaths in said age groups.

Hospitalizations & Hospitalization Rate by Age Group for Last Two Weeks

This data covers 9/20/2020 to 10/3/2020

Total COVID-19 Cases Occurring in the Last Two Weeks who were Reported as Hospitalized* by Age Group

Count by Age Group:
- 0-19: 1
- 20-29: 7
- 30-39: 10
- 40-49: 14
- 50-59: 12
- 60-69: 23
- 70-79: 26
- 80+: 40

Rate (per 100,000) of Total COVID-19 Cases Occurring in the Last Two Weeks who were Reported as Hospitalized* by Age Group

Rate per 100,000 by Age Group:
- 0-19: 0.1
- 20-29: 0.7
- 30-39: 1.1
- 40-49: 1.6
- 50-59: 1.2
- 60-69: 2.8
- 70-79: 5.4
- 80+: 13.7
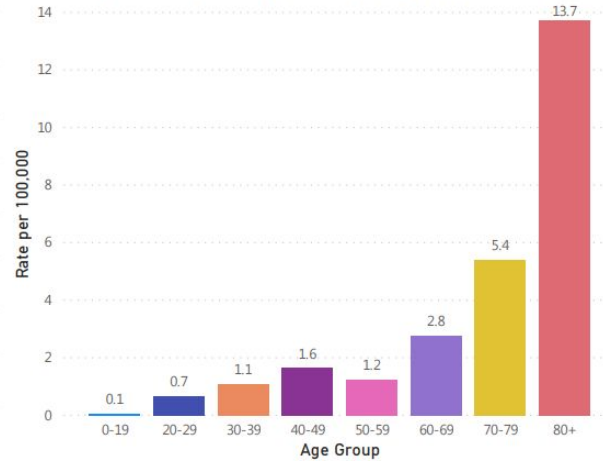
Average Age of Total Cases Occurring in the Last Two Weeks Reported as Hospitalized*
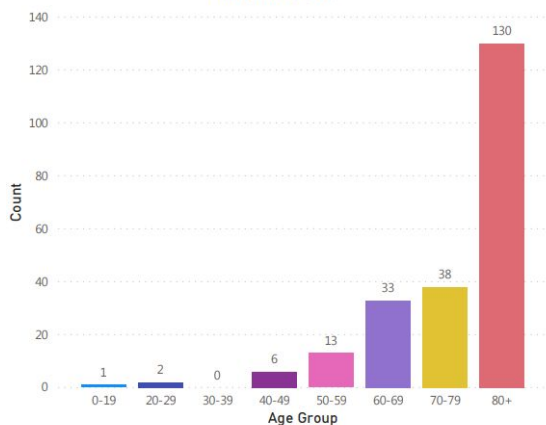
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Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; Population Estimates 2011-2018: Small Area Population Estimates 2011-2020, version 2018; Tables and Figures created by the Office of Population Health. Notes: all data are current as of 8:00am on the date at the top of the page; *Hospitalization refers to status at any point in time, not necessarily the current status of the patient, demographic data on hospitalized patients collected retrospectively; analysis does not include all hospitalized patients and may not add up to data totals from hospital surveys. Includes both probable and confirmed cases.

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Deaths and Death Rate by Age Group for Last Two Weeks

This data covers 9/20/2020 to 10/3/2020

Deaths by Age Group in Total COVID-19 for Last Two Weeks

Count by Age Group:
- 0-19: 1
- 20-29: 2
- 30-39: 0
- 40-49: 6
- 50-59: 13
- 60-69: 33
- 70-79: 38
- 80+: 130

Rate (per 100,000) of Total COVID-19 Deaths by Age Group for Last Two Weeks

Rate per 100,000 by Age Group:
- 0-19: 0.1
- 20-29: 0.2
- 30-39: 0.0
- 40-49: 0.7
- 50-59: 1.3
- 60-69: 4.0
- 70-79: 7.9
- 80+: 44.6
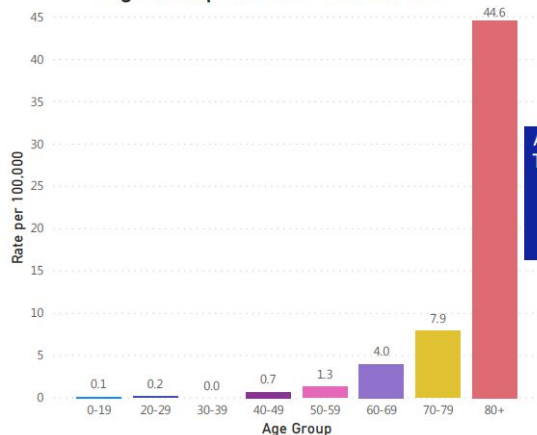
Average Age of Deaths in Total COVID-19 Cases for Last Two Weeks

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Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences and the Registry of Vital Records and Statistics; Population Estimates 2011-2018: Small Area Population Estimates 2011-2020, version 2018; Tables and Figures created by the Office of Population Health. Note: all data are current as of 8:00am on the date at the top of the page. Includes both probable and confirmed cases.
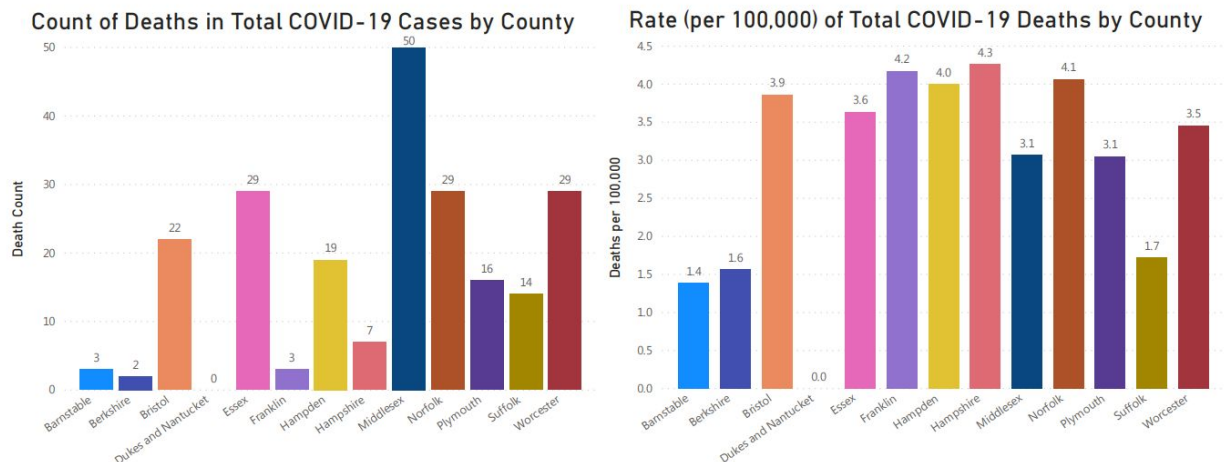
This information helped my research because, even though my demographic is people ranging the ages of 17 to 25, who don't present a high risk of hospitalization and death in the case that they contract COVID, these individuals often come into contact with demographics that represent a higher risk, like college faculty and residents of the surrounding areas of college campus.

Massachusetts Department of Public Health COVID-19 Dashboard - Wednesday, October 07, 2020

Deaths and Death Rate by County for Last Two Weeks

This data covers 9/20/2020 to 10/3/2020

Count of Deaths in Total COVID-19 Cases by County

Rate (per 100,000) of Total COVID-19 Deaths by County

Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; County Population Estimates 2011-2018: Small Area Population Estimates 2011-2020, version 2018, Massachusetts Department of Public Health, Bureau of Environmental Health; Tables and Figures created by the Office of Population Health. Note: all data are current as of 8:00am on the date at the top of the page. Includes both probable and confirmed cases.

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Following this, I decided to also research any information I could find relating to the cases in each county, since I want my application to give the user in depth information that goes beyond college students.

I also wanted to include a feature in my app which would give the user information on the cases related to specific universities. For this I decided to go into Northeastern's website and get their data on covid cases of students and faculties. The only problem I ran into was that Northeastern didn't have any information on the percentage of hospitalizations or deaths. While I could assume that the amount for both of these is zero, I can't say for sure.

The last two features I want to add to my app is the ability to see the COVID statues of the contacts of their phone, as well as the last time they got tested and their own information in terms of testing and status. These two would be taken from the university

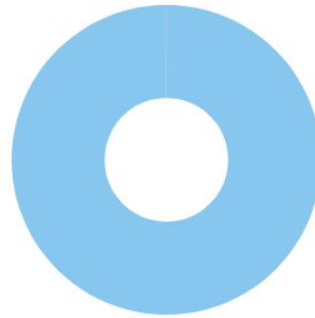database (the emails everyone receives with their test results)

Test Results by Date

NEGATIVE TESTS   **POSITIVE TESTS**
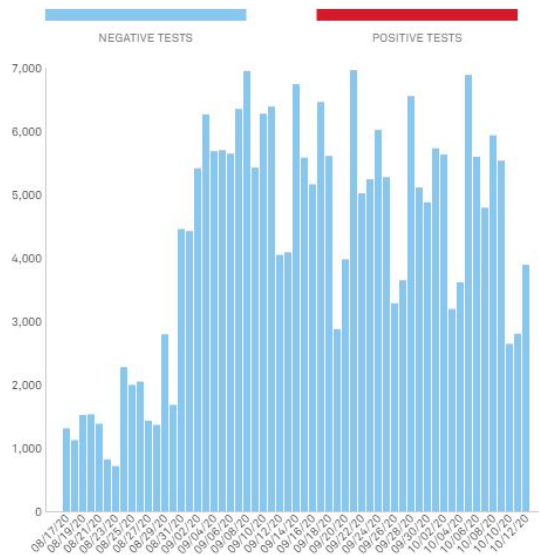
Current Positive Rate

7-day average of positive test results at Northeastern:

0.04%

Tests Completed	Negative Tests	Positive Tests		
243,601	243,481	120	Students:	107
			Faculty/Staff:	9
			Contract Employees:	4

Updated daily with the latest available numbers. Data includes students, faculty, staff, and contract employees.

Wellness and Contact Tracing

Students in Isolation		Students in Quarantine		Students Recovered	
ON CAMPUS	OFF CAMPUS	ON CAMPUS	OFF CAMPUS	ON CAMPUS	OFF CAMPUS
8	15	12	69	19	66

Beginning on September 25th, off-campus students are encouraged to isolate and quarantine in on-campus wellness housing.

DATE ▼	TESTS COMPLETED	NEGATIVE TESTS	NEGATIVE RATE	POSITIVE TESTS	POSITIVE RATE	MA POSITIVE RATE
10/12/20	3889	3887	99.95%	2	0.05%	1.2%
10/11/20	2801	2801	100.00%	0	0.00%	1.2%
10/10/20	2640	2638	99.92%	2	0.08%	1.2%
10/09/20	5533	5531	99.96%	2	0.04%	1.2%
10/08/20	5931	5928	99.95%	3	0.05%	1.1%
10/07/20	4789	4787	99.96%	2	0.04%	1.1%
10/06/20	5595	5594	99.98%	1	0.02%	1.1%
10/05/20	6886	6883	99.96%	3	0.04%	1.1%
10/04/20	3611	3611	100.00%	0	0.00%	1.1%
10/03/20	3191	3191	100.00%	0	0.00%	1.1%
10/02/20	5631	5628	99.95%	3	0.05%	1.1%
10/01/20	5727	5725	99.97%	2	0.03%	1.1%
09/30/20	4875	4873	99.96%	2	0.04%	1.1%
09/29/20	5111	5109	99.96%	2	0.04%	1.1%
09/28/20	6547	6541	99.91%	6	0.09%	1.1%
09/27/20	3644	3640	99.89%	4	0.11%	1.0%
09/26/20	3282	3281	99.97%	1	0.03%	0.9%
09/25/20	5270	5267	99.94%	3	0.06%	0.9%
09/24/20	6020	6016	99.93%	4	0.07%	0.9%
09/23/20	5239	5237	99.96%	2	0.04%	0.8%
09/22/20	5013	5008	99.90%	5	0.10%	0.8%
09/21/20	6959	6954	99.93%	5	0.07%	0.8%
09/20/20	3973	3970	99.92%	3	0.08%	0.8%
09/19/20	2874	2873	99.97%	1	0.03%	0.8%
09/18/20	5606	5603	99.95%	3	0.05%	0.8%
09/17/20	6455	6451	99.94%	4	0.06%	0.8%
09/16/20	5158	5157	99.98%	1	0.02%	0.8%
09/15/20	5580	5580	100.00%	0	0.00%	0.8%
09/14/20	6741	6739	99.97%	2	0.03%	0.9%
09/13/20	4084	4082	99.95%	2	0.05%	0.8%
09/12/20	4045	4045	100.00%	0	0.00%	0.8%
09/11/20	6387	6385	99.97%	2	0.03%	0.8%
09/10/20	6271	6268	99.95%	3	0.05%	0.8%
09/09/20	5424	5420	99.93%	4	0.07%	0.8%