



# COVID- 19 Impact, Mitigation, and Future Implications for a Central Phoenix Zip Code:

85034

Amina Aden, Farhana Afrin, Nichol Brahm, Turab Chevelwala, Shrey Goel, Stacy James, Lacey Oscarson, Skye Porter Berg, Nmeso Sampson, Melanie Schroeder, Travis Wahl

# Overview



Our project was designed in collaboration with a multidisciplinary team to analyze and investigate the pandemic's impact on the population within 85034, a historically underserved community near central Phoenix.

**Important goals were to examine the following within the 85034 community:**

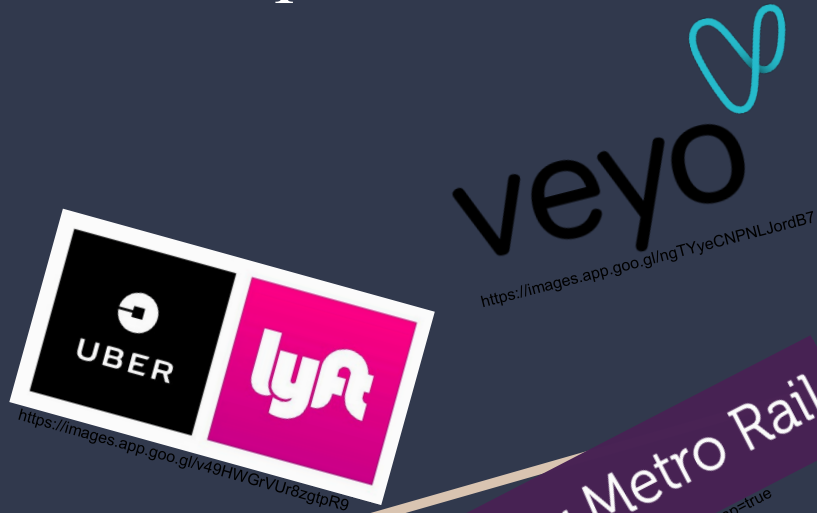
- Education
- Transportation
- Economics
- Housing
- Food access
- Rates of infections and vaccinations
- The rollout of the COVID-19 vaccine
- Ethical dilemmas and concerns of the vaccine

# Effects on Community College



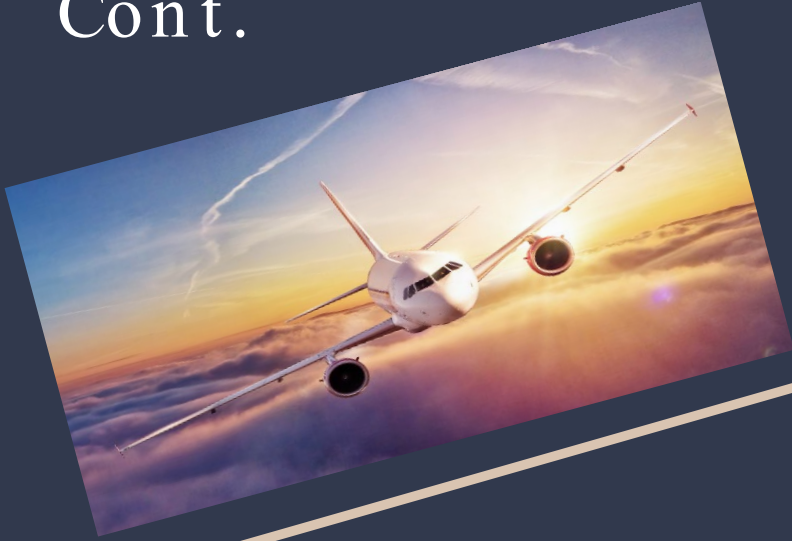
- Visit to GateWay Community College - Washington Campus
- Many in-person classes transitioned to online
- Loss of clinical placements for nursing students
- Most staff made to work from home
- Some buildings on campus closed down

# Effects on Transportation



- Enhanced safety protocols
- Limited number of passengers
- Change in Arizona Health Care Cost Containment System transportation billing

# Effects on Transportation Cont.



- Phoenix Sky Harbor Airport main source of air travel
- Abides by federal mandates & recommendations
- Developed multiple methods & regulations to ensure passengers traveling safely

(CDC, 2021;PSHIA, 2021)

# Effects on Economics & Housing



- Gross Domestic Product (GDP) decreased by 32% during second quarter
- Comparable to 2008-2009 recession
- By the fourth quarter, unemployment rate was 23%
- Approximately 180,000 Arizona households (1 in 6 who rent) are behind on payments

# Effects on Food Access

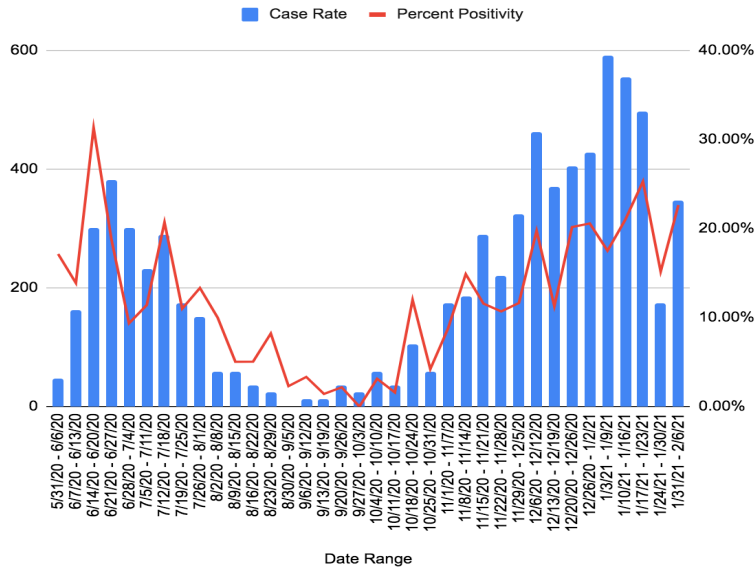


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- Unemployment rates rose substantially in this area leaving more families needing help
- Food insecurity and changes in food accessibility seen in many homes → more required help through food stamps and food banks
- To help provide relief, food stamps were made more accessible

# Testing and Vaccinations

Case Rate and Percent Positivity



- As of February 20, 2021:
  - 9 testing sites
  - 0 vaccination sites
- Between May 2020 and February 2021, over 5 months featured “substantial community spread”
  - Case rate > 100 cases per 100k individuals
  - Percent positivity > 10%
- 85034 had the 11th lowest vaccination rate out of the 135 zip codes that make up Maricopa County



# Vaccine Rollout

## Potential COVID-19 Vaccine Prioritization Overview\*



\*Distribution groups and timelines of phases shown are tentative. This information is subject to change due to future vaccine distribution guidance recommendations, FDA approval of vaccines, and vaccine allocation/availability.  
 \*\*Power and utility workers; food and agriculture-related occupations; transportation and moving material occupations; state and local government workers providing critical services; other essential workers

- Three-pronged approach to roll-out
  - Maricopa in Phase 1B as of 2/15
- 8.3% of 85034 population is  $\geq 65$ 
  - 12.4% are essential workers
- Both numbers are less than for Maricopa as a whole
- 85034 vaccination rate = 26.8%
  - Lower than for surrounding zip codes – may be justified by the lower percentage of essential workers and  $\geq 65$  population in this zip code
  - However 85034's median income = \$30,130 vs \$68,649 for Maricopa County

# Obstacles to Designing A Vaccination Clinic During a Pandemic



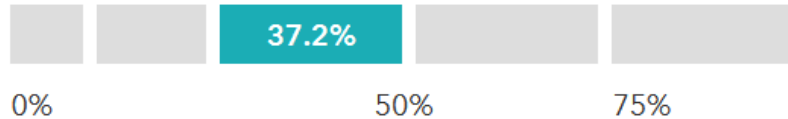
- Limited and rapidly changing vaccine production
- Phased vaccination roll outs
- Storage and handling of vaccine product
- Vaccine hesitancy

Future planning for efficient vaccine delivery in 85034 is needed

# Vaccine Hesitancy

85034 | PHOENIX

Percent of Eligible Population Vaccinated with 1st Dose



Number of People Vaccinated per 100k of Eligible Population

First Dose	Second Dose/ Fully Vaccinated
37,248.93	19,415.70

## Reasons for Hesitancy

- Rapid innovation of vaccines
  - Casts doubts on safety
- Side effects: arm muscle ache/soreness, fever, chills, fatigue, headache
  - Hesitancy in voluntarily getting side effects
- False claims/Misinformation
  - The vaccine will alter the recipient's DNA or change their genetic blueprint
  - That the COVID-19 vaccine will cause infertility
- Unknown how long protection will last
  - Studies are ongoing to see if future boosters will be needed after the initial vaccine(s)

## Overcoming Vaccine Hesitancy

- Get the facts from the CDC, FDA, and AzDHS
- Motivational Interviewing
- Shared-decision making

# Recommendations for 85034



## Address healthcare disparities and social determinants of health within 85034:

- Institute student-run public vaccination clinics at Valley Metro Light Rail Stops
- Provide accurate information about vaccines and expected immune response in the form of brochures
- Partner with community organizations that provide care to vulnerable populations, such as Street Medicine
- Utilize a multidisciplinary team approach

# Conclusion



- The zip code 85034 is an underserved, lower income area with high racial diversity
- With the increase in unemployment, closures of businesses, and scarcity of jobs within 85034, the impact of COVID-19 is substantial
- Residents' access to healthcare services has been affected
- Ongoing efforts are needed to improve healthcare access and quality for this population





Thank you to all of  
the wonderful and  
inspiring mentors,  
faculty members, and  
students who are a  
part of the AHEC  
community

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