Implementing Data-Driven Policy Decisions to Support Ohio’s Covid Response & Recovery

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Outline

• The presenter
• The Center for HOPES
• Ohio COVID Response and Recovery
  • Mortality Metrics
  • Analytics Paradigm
  • Background
  • Ohio COVID Survey
  • Selected Analysis
    • Consumer Confidence
    • Safety Protocols and Vaccination
• Questions
The Presenter

Education
The Presenter (Cont’d)

Areas of Interest
• Data science, data analytics, economics, applied mathematics, and public health policy evaluation

Affiliation With the Voinovich School
• Venture Analyst | TechGROWTH Ohio
• Graduate Intern at the International Economics Development Council
The Center for HOPES

*Mission: To support health equity and social justice through rigorous and innovative policy research and evaluation.*

- **Current activities:**
  - Center-led health outcomes research
  - Community engagement and external collaboration through evaluation studies

- **Future initiative:**
  - Building a home for health policy at Ohio State
Center for HOPES’s Core Activities

- Putting context in research
  - Community engagement & collaboration
  - Program evaluation

- Putting research in context
  - Policy, political, & administrative analysis
  - Research translation & dissemination
Ohio Mortality Metrics

Covid-19 Deaths vs All Cause of Mortality Pre Pandemic in Ohio

- Age group (years): 18 - 49, 50 - 64, 65 - 84, 85 +
- Number of Deaths: 0, 20000, 40000, 60000
- Legend: All Deaths (pre pandemic), Covid-19 Deaths
Ohio Mortality Metrics (Cont’d)

COVID 19 Mortality (All Ages)
Ohio Mortality Metrics (Cont’d)

COVID 19 Mortality (65+)

[Map showing COVID-19 mortality rates for states with varying shades representing different mortality ranges.]
Analytics Paradigm

1. Decompose the “Ask”
2. Identify Data Sources
3. Define Strategy and Matrices
4. Assemble and Clean
5. Retrieve the Data
6. Build the Data Retrieval Plan
7. Analyze for Trends
8. Acknowledge Limitations
9. Make the Cell or Tell the Story
Background

• HOPES staff began working with ODH and the Governor’s Office in March 2020

• Two OSU faculty sent to the Emergency Operations Center, one epidemiologist and one economist

• HOPES staff worked on the data team

• Epidemiology focused on modeling the pandemic’s progress
Background (Cont’d)

• Initial task was tracking the economic impact
• Problem – there are no real time economic data measures for a pandemic when policy changes daily and weekly
• Most timely, but also inherently flawed, data were unemployment claims data and credit card charge data
• Instead, we developed the Ohio COVID survey
Ohio COVID Survey

- Designed to be a 10-minute tracking survey
- First data in mid/late April
- Two challenges
  - Few COVID tests available in the early months; first half of the survey focused on symptoms to develop a proxy of COVID prevalence
  - We had to guess what data might be needed 6 – 12 months into the pandemic
- Ohio Dept of Medicaid created a parallel survey patterned off the OCS to track the physical and mental health of the Medicaid population compared to the Ohio population (from the OCS)
- The OCS ran until roughly December 2021; measures had become dated by that point
Ohio COVID Survey (Cont’d)

• Self-reported COVID-19 symptoms and prevalence of COVID screenings
• Physical and mental health risks and stressors
• Remote and non-remote access to health care and delays in care
• COVID-19-associated work stoppages and financial distress
The Ohio COVID Survey (Cont’d)

• Food insecurity

• Practices of social distancing

• Vaccine Hesitancy Report

• Vaccine Intentions & Herd Immunity
Financial Insecurity

Financial Insecurity (Three C Metros vrs Rest of State)

Respondents (%)  

20 Apr 20  18 May 20  15 Jun 20  20 Jul 20  17 Aug 20  19 Oct 20  14 Dec 20  08 Feb 21

Release Week

Three C Metros
Rest of State
Financial Insecurity (Cont’d)

Ohio Residents Unable to Pay Bills (Three C Metros vrs Rest of State)

Release Week

Respondents (%)
Financial Insecurity (Cont’d)
Financial Insecurity (Cont’d)
Ohio Vaccination Trend

Current Trend of Vaccinations in Ohio

- Intend to vaccinate
- Vaccinated

Survey Date:
- January
- February
- March
- April
- May
- June

Survey Date:
- January
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- March
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- May
- June

Intend to vaccinate or vaccinated

Do not intend to vaccinate

60%
50%
40%
30%
20%
10%
0%
Vaccine Hesitancy

Vaccine Hesitancy in Ohio by Race (Rural vrs Urban)

Vaccine Hesitancy in Ohio by Age

- Hesitant
- Planning to be vaccinated
- Vaccinated
Reasons for Vaccine Hesitancy

- Safety concerns: 62.3%
- Don’t trust government: 39.4%
- Don’t trust vaccines: 33.6%
- Not needed: 32.8%
- Don’t believe COVID-19 is serious or real: 13.0%
- Painful: 6.2%
- Difficulty with appointment: 4.8%
Face Covering

Ohioans Who Wear Face Covering Indoors

Survey Date

- January 1
- January 25
- February 8
- February 22
- March 8
- March 22
- April 5
- April 19

Vaccinated

Not vaccinated
Physical Distancing

Ohioans Who Stay 6 Feet from Others

Survey Date

January 11
January 25
February 8
February 22
March 8
March 22
April 5
April 16

Vaccinated
Not vaccinated
Physical Distancing (Cont’d)

Ohioans Who Attend Gatherings of More Than 19 People

Survey Date

January 25
February 8
February 22
March 8
March 22
April 5
April 19

Vaccinated
Not vaccinated
Unmet Demand

Unmet Demand for Vaccines Among Ages (44 years and Below) in Ohio

Unmet Demand for Vaccines Among Ages (45 to 64 years) in Ohio

Survey Date

Vaccinated
Intend to vaccinate or vaccinated
Unmet Demand (Cont’d)

Unmet Demand for Vaccines Among Ages (65 years and above) in Ohio

Unmet Demand for Vaccines in Ohio

[Graphs showing unmet demand for vaccines over time]
Questions
Thank you