Digital inequalities and public health during COVID-19:

Media dependency and vaccination

*Political and Health Information Seeking Project*

Research Team: Johannes M. Bauer (MSU), Bianca C. Reisdorf (UNCC), Grant Blank (Oxford), Shelia R. Cotton (Clemson), Anna Argyris (MSU), Craig T. Robertson (Oxford), Megan Knittel (MSU)
Vaccination and digital inequality

- Information about transmission of COVID-19 came out slowly, recommended practices changed overtime
  - Difficult to stay current
  - Unusual dependence on media to obtain accurate, current information
- Digital divide influences ability to use the Internet
- RQ: How do digital inequalities influence willingness to be vaccinated?
Research Strands

1. Vaccine hesitancy linked to socio-demographics, political leaning, and trust

2. Media systems dependency (MSD) and differences between information sources
   • People come to depend on certain media to achieve their goals
   • Do people trust different media?
3. Digital Inequalities

- Exacerbated during the pandemic
- Linked to information available to people
- Digital inequalities influence access to health information
  - Consequences for willingness to be vaccinated
Data and Methodology

• Survey data from 2,280 adult internet users in the U.S. (Oct-Nov 2020)
• Post stratification weights by age, gender, race, and census region
• Question topics: media use, information seeking, political leaning, amount of Internet use, Internet skills, factual knowledge of COVID-19
“I would take a coronavirus vaccine”
Empirical Model

Trust in health media

Amount of Internet use

Internet abilities

Number of health media used

Willingness to be vaccinated

Mainstream media

TV

Conservative media

Uncertainty about facts

Worry

Severity of contact

Higher age

Women

Higher income

Black

Center-leaning

General trust in people
Results

Notes: Model was fit with robust standard errors; solid blue line=positive relationship at p≤0.05; solid orange line=negative relationship at p≤0.05; gray line=not significant; N=1,903. See appendix for coefficients and p-values.
Implications

• Digital inequalities play a role in public health
  • Increased internet use leads to increased health information-seeking online, which reduces vaccine hesitancy

• Mechanism through which Internet access promotes public health

• Digital inequalities are a public health issue
  • Importance of addressing digital inequalities beyond access & skills

• Supports a more comprehensive approach to vaccination beyond socio-demographics and prior health beliefs
  • Where and how people find information on public health issues as important as demographics