## Webinar Series

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Interdisciplinary Research Team at RTI

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Today’s Presentation

• How do Americans perceive the threat of COVID-19?
• Have perceptions of threat shifted over time?
• Are threat perceptions linked to COVID-19-related behaviors?
• What are implications for these findings for communication and practice?
Methodology

- Probability-based, web-based panel designed to be representative of U.S. households
  - Wave 1: Feb 28–March 2, 2020 (n = 1,021)
  - Wave 2: April 10–13 & 17–20, 2020 (n = 2,279)
- Weighted to represent the U.S. population
The online survey collected information about perceptions of risk and threat, knowledge, attitudes, and mitigation behaviors related to COVID-19.

Added new survey items as issues emerged.
Respondent Characteristics for Wave 2 (n = 2,279)

- **Gender:**
  - Male: 48%
  - Female: 52%

- **Education:**
  - Less than High School: 11%
  - High School: 28%
  - Some College: 28%
  - Bachelor's Degree or Higher: 33%

- **Annual Income:**
  - <$50,000: 32%
  - $50,000–$99,999: 31%
  - $100,000–$149,999: 17%
  - ≥ $150,000: 21%

- **Age:**
  - 18–24: 10%
  - 25–34: 18%
  - 35–49: 24%
  - 50–64: 26%
  - 65+: 22%

- **Race/Ethnicity:**
  - White: 78%
  - Black: 12%
  - Other: 10%
  - Hispanic: 16%
  - Not Hispanic: 84%

- **Health Status:**
  - Excellent/Very Good: 50%
  - Good: 35%
  - Fair/Poor: 15%

- **Occupation:**
  - Employed: 65%
  - Not Employed: 35%

- **Region:**
  - Northeast: 18%
  - Midwest: 21%
  - South: 38%
  - West: 24%

- **Employed:**
  - Less than High School: 11%
  - High School: 28%
  - Some College: 28%
  - Bachelor's Degree or Higher: 33%
Timeline

- **2/26/2020**: Declared State of Emergency
- **3/4/2020**: Stay-at-Home Mandates
- **3/11/2020**: Face Covering Requirement
- **3/18/2020**: CDC issues recommendations for social distancing
- **3/25/2020**: CDC issues recommendations for cloth face coverings
- **4/1/2020**: National emergency declared
- **4/8/2020**: RTI’s Data Collection Wave 1
- **4/15/2020**: RTI’s Data Collection Wave 2
- **4/22/2020**: # of States
- **4/29/2020**: # of States
What Can Social and Behavioral Sciences Offer?
Perceived Threat

Evaluation of both the severity and vulnerability of a situation.

“What level of threat do you think the Coronavirus poses to each of the following?”

Self/Family

Vulnerable Others
### Definitions of Key Terms and Measures

<table>
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<tr>
<th>Perceived Risk</th>
<th>Worry</th>
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<tr>
<td>Beliefs about the chances or likelihood of becoming infected; also known as <em>perceived susceptibility</em>.</td>
<td>Continuous thinking about an impending negative event; emotional reaction.</td>
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<tr>
<td>“I am likely to get the coronavirus.”</td>
<td>“I am worried about getting the coronavirus.”</td>
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Do Threat Perceptions Vary by Subgroups?

- Age
- Race and Ethnicity
- Education
- U.S. Region (NE, MW, W, S)
- High-Risk for Severe Illness
How Do Americans Perceive the Threat of COVID-19?
Americans perceive COVID-19 as a greater threat to vulnerable populations than to themselves or family.
Non-Whites, Hispanics, and those with less than a high school education perceive COVID-19 a greater threat to self/family.
Older Americans did **not** differ from other age groups in their perceptions of threat to self/family.
High Risk for Severe Illness

- Age 65+
- Severe obesity
- Chronic kidney, liver or lung disease
- Compromised immune system
- Diabetes
- Serious heart condition
- Moderate-severe asthma
- Neurological condition

High Risk
- 49%

Not High Risk
- 51%
% Perceive COVID-19 as Very High/High Threat to Self/Family

Not High Risk | High Risk
---|---
Low or Very Low | 37% | 27%
Moderate | 39% | 42%
Very High or High | 19% | 28%

Those at higher risk for severe illness are somewhat more likely to perceive COVID-19 as a threat to self/family.

Comparison statistically significant p<.001
Yet, 27% of those at high risk of severe illness from COVID-19 described the threat to themselves or family as “low” or “very low.”

Optimism Bias?
At my age, eighty-five, I have too many other medical problems and am too old to have this problem visit me.
I am likely to get the Coronavirus.

A majority do not think they are likely to get COVID-19...
I am worried about getting the coronavirus.

...but a fair amount worry about getting it.
Those living in the Northeast expressed more worry about getting COVID-19.

Comparison statistically significant  p<.05
Have Threat Perceptions Changed over Time?
Mean Perceived Threat Scores Increased over Time

- Threat Self/Family
  - Wave 1: 2.5
  - Wave 2: 2.9

- Threat Elderly/Immunocompromised
  - Wave 1: 4.2
  - Wave 2: 4.5

Note: Adjusted means control for gender, age, race/ethnicity, education, income, employment status, health insurance, region, self-reported health status, risk status, and proximity to the coronavirus. P = <0.001.
Mean Perceived Risk and Worry Increased over Time

- Perceived Risk
  - Wave 1: 1.8
  - Wave 2: 2.1

- Worry
  - Wave 1: 2.3
  - Wave 2: 2.8

Note: Adjusted means control for gender, age, race/ethnicity, education, income, employment status, health insurance, region, self-reported health status, risk status, and proximity to the coronavirus.
I don't want to put anyone in harm's way and affect their health, especially with the increasing death rates right now.

We don’t want our family to get sick, especially since some are older and might not make it if they get sick.
Does Perceived Threat Motivate Behavior?
<table>
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<tr>
<th>12-Item Behavioral Index</th>
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<tr>
<td>Washing my hands with soap and water more often</td>
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<tr>
<td>Using more disinfectants, such as hand sanitizers and cloth wipes</td>
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<tr>
<td>Wearing a face mask while out in public</td>
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<tr>
<td>Avoiding travel on subways, buses, taxis, and Ubers/Lyfts</td>
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<tr>
<td>Wearing a cloth face covering while out in public</td>
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<tr>
<td>Sheltering-in-place/staying home</td>
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<tr>
<td>Not letting people who do not live with me enter my home</td>
</tr>
<tr>
<td>Not visiting family and friends in their homes</td>
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<tr>
<td>Planning to wear face covering</td>
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<tr>
<td>Practicing social distancing</td>
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<tr>
<td>Postponing or canceling non-essential medical appointments, procedures, or surgeries</td>
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<tr>
<td>Wearing protective gloves while out in public</td>
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More Perceived Threat to Self and Others = More Behaviors

p = <.001. Note: Adjusted for gender, age, race/ethnicity, education, income, employment status, health insurance, region, self-reported health status, risk status, and proximity to the coronavirus.
Higher Perceived Risk, More Worry = More Behaviors

Number of Behaviors

Strongly Disagree | Disagree | Agree | Strongly Agree

Worried | Perceived Risk

p = < .001. Note: Adjusted for gender, age, race/ethnicity, education, income, employment status, health insurance, region, self-reported health status, risk status, and proximity to the coronavirus.
Perceived Threat to Self/Family and Individual Behaviors

- Handwashing
- Social distancing
- Not visiting friends/family
- Not letting people in
- Cloth face covering

p = .05. Note: Adjusted percentages control for gender, age, race/ethnicity, education, income, employment status, health insurance, region, self-reported health status, risk status, and proximity to the coronavirus.
The Other Piece: Is It Effective? Can I Do It?

Threat
Perceived severity
+ Perceived vulnerability

Coping
Perceived response efficacy
+ Perceived self efficacy

Behavior intention

Actual behavior
How Effective Do You Think Each of the Following Will Be in...?

Percent who strongly agree/agree

- 6 feet apart: 83%, 84%, 82%
- Stay at home: 87%, 86%, 84%
- Closings: 85%, 86%, 84%
- Face coverings: 62%, 67%, 65%
- Handwashing: 87%, 87%, 82%

- Protecting self and family from getting CV
- Protecting people in community from getting CV
- Reducing number of people who die from CV
Respondents believe they know how to and can practice social distancing. Do not feel confident they can shelter-in-place/stay-at-home for however long authorities recommend. 22% Believe it is hard to get people in their household to stay at home.
What Does This Mean for Public Health?
Communication strategies must strike a balance between breaking through optimism bias without inducing excessive feelings of anxiety and dread.

(Van Bavel et al., 2020)
Other Strategies for Communication and Practice

- Emphasize the **effectiveness** of the preventive measures.
- Instill **confidence** in people’s abilities to practice behaviors.
  - Model behavior; share stories about how others overcame barriers.
- Educate on the benefits to self and **to others**.
- Consider **focused** messages.
Tips for States and Surveillance

• Test messages with population before they are widely disseminated.
• Continue monitoring public perceptions and behavior.
Contact Us

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To combat the unprecedented challenges presented by COVID-19, RTI International offers broad and deep experience to address a variety of public health threats—including Ebola, Zika, tuberculosis, malaria, and HIV.

**RTI offers a deep bench of cross-functional experts**, including
- Epidemiologists
- Data scientists
- Public health workers
- Educators and trainers
- Physicians
- Survey methodologists
- Evaluation specialists
- Innovation experts

Learn more about RTI’s rapid response to COVID-19 [here](https://rti.org/emerging-issue/covid-19-research)