

Relying on Research for Effective Response: A Survey Tool for Measuring the Impact of COVID-19 to Create Extension Resources¹

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Background

The UF/IFAS Center for Public Issues Education in Agriculture and Natural Resources (PIE Center) conducted a series of national public opinion surveys to examine Americans' perceptions related to COVID-19. The PIE Center launched the series of surveys in mid-March 2020 and continued collecting public opinion surveys related to COVID-19 through early 2022. In addition, the PIE Center surveyed leaders in agriculture and natural resources sectors to explore their unique concerns and beliefs early in the pandemic. Perception data collected through public opinion surveys informed the development of education and communication tools, such as fact sheets and social media graphics. This article focuses on the resources the PIE Center developed based on these data and the research tool used to collect data to inform the resource development. Other Extension professionals and faculty can use and adapt the survey tools to evaluate specific needs related to health in their states to create resources to meet their Extension stakeholders' needs.

Extension Resources

The PIE Center used the survey tools described here to create Extension and outreach communication pieces, including issue guides, kinetic typography videos, webinars, and communication toolkits. For each survey, major findings were summarized in an issue guide, or an information sheet that provided a synopsis of a particular issue related to COVID-19, such as social distancing, mask wearing, or vaccines. These issue guides contained easy-to-understand graphs and data representations. Graphics used in the issue guides were also used as social media content and in kinetic typography videos. Kinetic typography videos are short, text-based videos with little to no narration. Additionally, these graphics were used for visual content in webinars. The PIE Center hosted a series of five webinars on topics related to COVID-19, including social distancing, communication concerns, and the COVID-19 vaccines. These webinars were targeted to Extension professionals, communicators, and public health professionals to provide valuable guidance on the public's perceptions of COVID-19. Data

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collected from the PIE Center on Americans' perceptions related to COVID-19 also informed two communication toolkits developed for Extension. Figure 1 outlines the details of the toolkits.

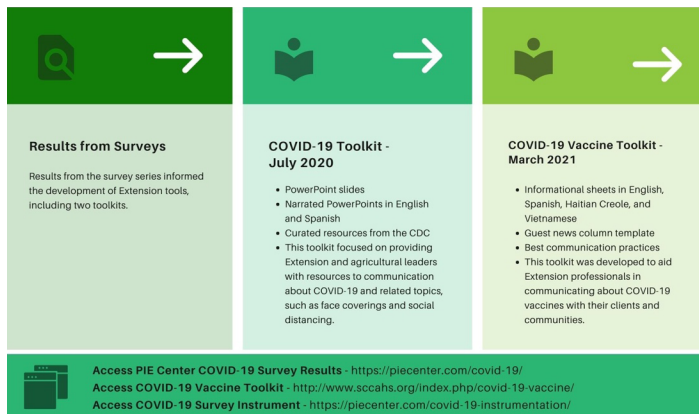


Figure 1. Description of Toolkits Developed from COVID-19 Survey Data.

Survey Development and Use

Survey constructs were developed for the initial survey in March 2020. Some constructs remained the same across additional survey distributions, while others evolved as the science and recommendations related to COVID-19 evolved. Surveys were conducted with the American public with ~1,500 US adults using nonprobability (nonrandom) quota sampling based on the US Census. The surveys with the American public were conducted at four different times with public opinion 1 (PO 1) ran from March 13 to 16, 2020; public opinion 2 (PO 2) ran from April 23 to May 2, 2020; public opinion 3 (PO 3) ran from July 23 to August 9, 2020; and public opinion 4 (PO 4) ran from January 8 to January 21, 2021. The agriculture and natural resource leaders survey (ANR) ran from March 16 to April 21, 2020, and included 225 ANR leaders from 17 different states who participated in 8 different state agricultural leadership programs. Constructs included in these surveys and the reliability of those constructs from each survey are included in Tables 1–4. While the PIE surveys contained a wide array of items, the focus of this article is on the concerns related to COVID-19. You can view more details about the surveys, including survey results, and download questions at <https://piecenter.com/covid-19-instrumentation/>.

All concern items began with a yes/no question to determine if they were concerned about the item. If they answered “yes” they were concerned, then they were asked how concerned they were on a scale of 1–5, with 1 = only slightly concerned to 5 = extremely concerned. The yes/no initial questions are included in the following tables.

Demographic Items Unique to COVID-19

Demographic items were included in all surveys related to age, income, race, ethnicity, political beliefs, residency location, occupation, and gender. Some demographic items were developed specific to COVID-19, and these items are included in Table 5 so others can consider the use of these items to meet the needs of resource development in their Extension programs.

Conclusion

COVID-19 has impacted all Extension systems, and the needs of stakeholders related to this topic may have shifted during this time. Others interested in developing resources based on the needs and perceptions of their stakeholders related to COVID-19 or future health crises are encouraged to conduct similar research within their Extension systems. As future public health outbreaks occur, practitioners can collect information, by applying the survey shared in this document, to determine what information needs stakeholders have and then develop resources to best address those needs. For example, if stakeholders indicate they are most concerned about personally contracting COVID-19, or other diseases, resources should be developed that specifically focus on protective actions individuals can control for themselves. If people are interested in using the PIE Center materials created from this work, they can download these at <https://piecenter.com/covid-19>.

Table 1. General Concern Items.

| | PO1 | ANR | PO2 | PO3 | PO4 |
|---|-----|-----|-----|-----|-----|
| I am concerned that I am personally at risk of contracting COVID-19. ^a | X | X | X | X | X |
| I am concerned that my loved ones are at risk of contracting COVID-19. | X | | X | X | X |
| I am concerned about my likeliness of coming into contact with a person infected with COVID-19. | X | | X | X | X |
| I am concerned that I could die from COVID-19. ^a | X | X | X | | X |
| I am concerned my loved ones could die from COVID-19. | X | | X | X | X |
| I am concerned that others in my state are at risk of contracting COVID-19. | X | | X | X | X |
| I am concerned that people in other areas of the United States are at risk of contracting the COVID-19. | X | | X | X | X |
| I am concerned that people in other countries are at risk of contracting COVID-19. | X | | X | X | X |
| I am concerned about pets contracting COVID-19. | X | | | | |
| I am concerned that others I come into contact with are not taking appropriate measures to avoid contracting COVID-19 (e.g., washing hands, staying at home when sick). ^a | X | X | | | |
| I am concerned that COVID-19 will be used for biological warfare. ^b | X | X | | | |
| I am concerned illegal immigrants and/or non-citizens currently residing in the United States will not seek medical attention if they believe they have contracted COVID-19. ^b | X | X | X | X | X |
| I am concerned about pets and/or livestock being infected with COVID-19. ^a | | X | | | |
| On a scale of 1–5, how would you rate your overall level of concern regarding COVID-19? (1 = Not at all concerned; 5 = Extremely concerned). ^c | | | X | X | X |
| <i>Note.</i> Cronbach's Alpha for Reliability: PO1 (.92), ANR (.86 ^a , .74 ^b), PO2 (.89), PO3 (.96), PO4 (.91). | | | | | |
| ^a Reliability for 4 items in ANR. | | | | | |
| ^b Reliability for 2 items in ANR. | | | | | |
| ^c Scale for the overall concern item was labeled differently as 1 = Not at all concerned to 5 = Extremely concerned. | | | | | |

Table 2. Economic Concern Items.

| | PO1 | ANR | PO2 | PO3 | PO4 |
|--|-----|-----|-----|-----|-----|
| I am concerned there will be an increase in food prices because of COVID-19. | X | X | X | X | X |
| I am concerned about the impact of COVID-19 on my state's economy. | X | X | X | X | X |
| I am concerned about the impact of COVID-19 on the US economy. | X | X | X | X | X |
| I am concerned about the impact of COVID-19 on the global economy. | X | X | X | X | X |
| I am concerned about the impact of COVID-19 on my personal finances. | | X | X | X | X |
| I am concerned about the financial impacts of COVID-19 on large US corporations. | | | X | X | X |
| I am concerned about the financial impacts of COVID-19 on small businesses in the US. | | | X | X | X |
| I am concerned about the financial impacts of COVID-19 on US farmers and ranchers. | | | X | X | X |
| I am concerned about potential labor shortages in agriculture and natural resources sectors due to COVID-19. | | X | | | |
| <i>Note.</i> Cronbach's Alpha for Reliability: PO1 (.84), ANR (.75), PO2 (.85), PO3 (.94), PO4 (.88) | | | | | |

Table 3. Preparedness Concern Items.

| | PO1 | ANR | PO2 | PO3 | PO4 |
|--|-----|-----|-----|-----|-----|
| I am concerned about my personal level of preparedness to deal with COVID-19. | X | X | X | X | X |
| I am concerned about my loved ones' level of preparedness to deal with COVID-19. | X | X | X | X | X |
| I am concerned about the level of preparedness of the general public in dealing with COVID-19. | | | X | X | X |
| I am concerned about my local community's level of preparedness to deal with COVID-19. | X | X | X | X | X |
| I am concerned about my state's level of preparedness to deal with COVID-19. | X | X | X | X | X |
| I am concerned about the United States' level of preparedness to deal with COVID-19. | X | X | X | X | X |
| I am concerned about other countries' level of preparedness to deal with COVID-19. | X | X | X | X | X |
| I am concerned about health care professionals' level of preparedness to deal with COVID-19. | X | X | X | X | X |
| I am concerned about the level of preparedness of others I come into contact in dealing with COVID-19. | X | | | | |
| I am concerned about Extension's level of preparedness to deal with COVID-19. | | X | | | |
| <i>Note.</i> Cronbach's Alpha for Reliability: PO1 (.90), ANR (.86), PO2 (.90), PO3 (.95), PO4 (.92). | | | | | |

Table 4. Communication Concern Items.

| | PO1 | ANR | PO2 | PO3 | PO4 |
|---|-----|-----|-----|-----|-----|
| I am concerned that I am not getting accurate information about COVID-19. | X | X | X | X | X |
| I am concerned that my loved ones are not getting accurate information about COVID-19. | X | X | X | X | X |
| I am concerned that others are not getting accurate information about COVID-19. | X | X | X | X | X |
| I am concerned that other members of the public are sharing inaccurate information about COVID-19. | X | X | | | |
| I am concerned that media and news outlets are sharing inaccurate information about COVID-19. | X | X | | | |
| I am concerned agricultural/farm laborers are not getting accurate information about COVID-19. | | X | | | |
| <i>Note.</i> Cronbach's Alpha for Reliability: PO1 (.88), ANR (.67), PO2 (.86), PO3 (.92), PO4 (.91). | | | | | |

Table 5. Demographic Survey Items Specific to COVID-19.

| Question | Answer Choices |
|--|---|
| Which of the following best describes your current work/employment status due to COVID-19? | <p>I am currently completely out of work/unemployed because of COVID-19.</p> <p>I am still employed, but have experienced a significant decrease in income because of COVID-19.</p> <p>I am still employed and making the same income as I was prior to COVID-19.</p> <p>Not applicable because I did not work/was not employed prior to COVID-19.</p> |
| Which of the following best describes your spouse/ domestic partner’s current work/employment status due to COVID-19? | <p>My spouse/partner is currently completely out of work/unemployed because of COVID-19.</p> <p>My spouse/partner is still employed, but has experienced a significant decrease in income because of COVID-19.</p> <p>My spouse/partner is still employed and making the same income as they were prior to COVID-19.</p> <p>Not applicable because my spouse did not work/was not employed prior to COVID-19.</p> |
| Are you working from home because of COVID-19? | <p>Yes</p> <p>No</p> <p>Not applicable</p> |
| You indicated you are not working from home because of COVID-19. Please select the option that best describes why you are not working from home. | <p>I am considered an “essential” employee.</p> <p>I am not considered an “essential” employee, but my company/employer has not followed recommendations for employees to work at home.</p> <p>I am out of work during COVID-19 because my job is not one that can be done from home.</p> <p>I am not working from home because I choose not to.</p> <p>Other (please describe)</p> |
| Are you considered “at higher risk” for COVID-19 (e.g., those with underlying medical conditions)? | <p>Yes</p> <p>No</p> |
| Do you have living parents? | <p>Yes</p> <p>No</p> |
| Do you have living grandparents? | <p>Yes</p> <p>No</p> |