Supplemental materials for

Van Scoy L, Miller EL, Snyder B, et al. Knowledge, perceptions, and preferred information sources related to COVID-19 zmong Central Pennsylvania adults early in the pandemic: a mixed methods cross-sectional survey. *Ann Fam Med*. May 2021. Doi:10.1370/afm.2674.

Supplemental Tables 1-6

Supplemental Table 1. Knowledge by Education Subgroups (N=5948)					
Question	**Correct[b]**	**Missing Knowledge Response and Confidence Weight (N) [c]**	**Weighted Item-Level [d] Stratified by Education Level [e]**		**Modeling Probability of Correct Response**
			< Bachelor's Degree (N = 2413)	**≥ Bachelor's Degree (N = 3523)**	**OR (95% CL) ≥ Bachelor's Degree vs. < Bachelor's Degree**
[a] Treatments for the symptoms of COVID-19 are available without a prescription.	True	19	0.37 (0.35, 0.40)	0.44 (0.42, 0.46)	**1.33 (1.16, 1.53)**
[a] Most hospitalized patients with COVID-19 should be treated in an ICU.	False	25	0.58 (0.55, 0.60)	0.69 (0.67, 0.71)	**1.66 (1.42, 1.93)**
The CDC recommends using corticosteroids for COVID-19 patients with acute respiratory distress syndrome (ARDS).	False	176	0.54 (0.51, 0.58)	0.59 (0.57, 0.62)	**1.24 (1.03, 1.49)**
COVID-19 is the first coronavirus to cause disease in humans.	False	27	0.92 (0.90, 0.93)	0.96 (0.95, 0.97)	**2.22 (1.70, 2.91)**
[a] Patients with shortness of breath, fever, and cough should call the emergency room prior to arrival.	True	21	0.88 (0.86, 0.90)	0.90 (0.89, 0.91)	1.21 (0.99, 1.47)
Patients whose first (early) symptoms are severe are more likely to die from COVID-19 than those whose first (early) symptoms are less severe.	False	47	0.77 (0.74, 0.79)	0.77 (0.75, 0.79)	1.01 (0.84, 1.21)
[a] Children ages 5 and under are at higher risk of death from COVID-19.	False	33	0.81 (0.79, 0.83)	0.92 (0.91, 0.93)	**2.59 (2.10, 3.18)**
In someone who has not received the measles vaccine, measles is more contagious than COVID-19.	True	62	0.36 (0.33, 0.39)	0.48 (0.45, 0.50)	**1.62 (1.38, 1.90)**

The incubation period for the coronavirus that causes COVID-19 is up to 21 days.	False	39	0.47 (0.44, 0.50)	0.48 (0.45, 0.50)	1.03 (0.89, 1.19)
[a] *Healthy people should wear facemasks to help prevent the spread of COVID-19.*	False	20	0.79 (0.77, 0.81)	0.89 (0.87, 0.90)	**2.03 (1.71, 2.42)**
[a] *A vaccine for COVID-19 should be available within approximately 3 months.*	False	26	0.86 (0.84, 0.87)	0.95 (0.94, 0.95)	**2.96 (2.34, 3.74)**
CDC recommends the use of alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol.	True	34	0.92 (0.91, 0.93)	0.94 (0.93, 0.95)	1.28 (0.99, 1.66)
Currently, the CDC recommends that everyone with COVID-19 symptoms should get tested.	False	28	0.42 (0.39, 0.45)	0.60 (0.58, 0.62)	**2.05 (1.78, 2.35)**
[a] *Everyone who tests positive for COVID-19 should be treated with hydroxychloroquine (Plaquenil ®) or chloroquine.*	False	39	0.89 (0.87, 0.91)	0.97 (0.96, 0.98)	**4.08 (3.05, 5.45)**
[a] *COVID-19 testing is not recommended for individuals with no symptoms, even if they were exposed to someone with confirmed COVID-19 within the past 2 weeks.*	True	20	0.68 (0.65, 0.70)	0.73 (0.71, 0.75)	**1.31 (1.12, 1.53)**
Total Score (15-Item)		616	0.70 (0.69, 0.71)	0.78 (0.77, 0.78)	**1.51 (1.45, 1.57)**
Total Score (8-Item)		616	0.74 (0.73, 0.75)	0.82 (0.82, 0.83)	**1.64 (1.55, 1.73)**

OR = Odds Ratio; CL = Confidence Limits

Statistically significant comparisons are **bolded** (adjusted *p < 0.05 for individual items; p < 0.05 for 8- and 15-item composites*)

a Item belongs to selected 8-item subset.

[b] Correct response according to information publically available from the Centers for Disease Prevention and Control website as of the date the survey was distributed (03/25/2020).

[c] Simple imputation was used for confidence items where respondents answered the knowledge component, but skipped the corresponding confidence component (N = 170 imputed confidence level values). After imputing confidence levels, any item missing a knowledge response was also missing a confidence level, and vice versa.

[d] The statistical model used to calculate weighted predicted probabilities of correct responses (and corresponding 95% confidence limits) while accounting for the corresponding confidence in the response excluded N = 616 missing knowledge response questions and N = 616 missing weight values. Note that N = 616 reflects the number of items, not the number of patient respondents.

[e] Less than a Bachelor's Degree includes the highest level of education completed as: Did not finish high school, High School, Some college, Associate's degree. Bachelor's Degree or higher includes the highest level of education completed as: Bachelor's degree or Graduate degree. N = 12 respondents were missing values for highest level of completed education (excluded N = 12 respondents; N = 180 missing fixed [subject] effects). N = 5936 patient respondents were included in the analysis for a total of N = 88428 observations used.

Supplemental Table 2. Knowledge by Race Subgroups (N=5948)					
Question	**Correct[b]**	**Missing Knowledge Response and Confidence Weight (N)[c]**	**Weighted Item-Level[d] Stratified by Race[e]**		**Modeling Probability of Correct Response**
			Non-White (N = 271)	**White (N = 5473)**	**OR (95% CL) White vs. Non-White**
[a] *Treatments for the symptoms of COVID-19 are available without a prescription.*	True	19	0.41 (0.34, 0.49)	0.42 (0.40, 0.43)	1.02 (0.74, 1.41)
[a] *Most hospitalized patients with COVID-19 should be treated in an ICU.*	False	25	0.59 (0.51, 0.67)	0.65 (0.63, 0.67)	1.29 (0.93, 1.80)
The CDC recommends using corticosteroids for COVID-19 patients with acute respiratory distress syndrome (ARDS).	False	176	0.56 (0.46, 0.66)	0.57 (0.55, 0.60)	1.05 (0.69, 1.61)
COVID-19 is the first coronavirus to cause disease in humans.	False	27	0.91 (0.86, 0.94)	0.95 (0.94, 0.95)	1.78 (1.06, 3.00)
[a] *Patients with shortness of breath, fever, and cough should call the emergency room prior to arrival.*	True	21	0.89 (0.84, 0.93)	0.89 (0.88, 0.90)	1.00 (0.62, 1.60)
Patients whose first (early) symptoms are severe are more likely to die from COVID-19 than those whose first (early) symptoms are less severe.	False	47	0.77 (0.68, 0.83)	0.77 (0.75, 0.79)	1.03 (0.67, 1.59)
[a] *Children ages 5 and under are at higher risk of death from COVID-19.*	False	33	0.77 (0.69, 0.83)	0.89 (0.87, 0.90)	**2.37 (1.61, 3.49)**
In someone who has not received the measles vaccine, measles is more contagious than COVID-19.	True	62	0.38 (0.30, 0.47)	0.43 (0.41, 0.45)	1.22 (0.85, 1.76)
The incubation period for the coronavirus that causes COVID-19 is up to 21 days.	False	39	0.45 (0.37, 0.53)	0.48 (0.46, 0.50)	1.12 (0.80, 1.58)
[a] *Healthy people should wear facemasks to help prevent the spread of COVID-19.*	False	20	0.70 (0.63, 0.76)	0.86 (0.85, 0.87)	**2.62 (1.88, 3.65)**
[a] *A vaccine for COVID-19 should be available within approximately 3 months.*	False	26	0.88 (0.82, 0.92)	0.92 (0.91, 0.92)	1.51 (0.94, 2.43)
CDC recommends the use of alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol.	True	34	0.94 (0.89, 0.96)	0.93 (0.92, 0.94)	0.91 (0.48, 1.70)
Currently, the CDC recommends that everyone with COVID-19 symptoms should get tested.	False	28	0.37 (0.30, 0.44)	0.53 (0.52, 0.55)	**1.98 (1.43, 2.76)**
[a] *Everyone who tests positive for COVID-19 should be treated with hydroxychloroquine (Plaquenil ®) or chloroquine.*	False	39	0.90 (0.84, 0.94)	0.94 (0.94, 0.95)	1.91 (1.13, 3.25)

[a] *COVID-19 testing is not recommended for individuals with no symptoms, even if they were exposed to someone with confirmed COVID-19 within the past 2 weeks.*	True	20	0.51 (0.43, 0.59)	0.72 (0.71, 0.74)	**2.52 (1.79, 3.54)**
Total Score (15-Item)		616	0.68 (0.66, 0.70)	0.75 (0.75, 0.76)	**1.41 (1.29, 1.54)**
Total Score (8-Item)		616	0.71 (0.69, 0.74)	0.80 (0.79, 0.80)	**1.57 (1.38, 1.77)**

OR = Odds Ratio; CL = Confidence Limits
Statistically significant comparisons are **bolded** (adjusted *p < 0.05 for individual items; p < 0.05 for 8- and 15-item composites*)
[a] Item belongs to selected 8-item subset.
[b] Correct response according to information publically available from the Centers for Disease Prevention and Control website as of the date the survey was distributed (03/25/2020).[cc] Simple imputation was used for confidence items where respondents answered the knowledge component, but skipped the corresponding confidence component (N = 170 imputed confidence level values). After imputing confidence levels, any item missing a knowledge response was also missing a confidence level, and vice versa.
[d] The statistical model used to calculate weighted predicted probabilities of correct responses (and corresponding 95% confidence limits) while accounting for the corresponding confidence in the response excluded N = 616 missing knowledge response questions and N = 616 missing weight values. Note that N = 616 reflects the number of items, not the number of patient respondents.
[e] Non-White Race includes American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Pacific Islander. N = 204 respondents were missing values for race, or reported that they would 'Prefer not to answer' (excluded N = 204 respondents; N = 3060 missing fixed [subject] effects). N = 5744 patient respondents were included in the analysis for a total of N = 85571 observations used.

Supplemental Table 3. Knowledge by Age Subgroups (N=5948)					
Question	**Correct [b]**	**Missing Knowledge Response and Confidence Weight (N) [c]**	**Weighted Item-Level [d] Stratified by Age Group [e]**		**Modeling Probability of Correct Response**
			< 60 (N = 3057)	**≥ 60 (N = 2863)**	**OR (95% CL) ≥ 60 vs. < 60**
[a] *Treatments for the symptoms of COVID-19 are available without a prescription.*	True	19	0.48 (0.46, 0.50)	0.35 (0.33, 0.37)	**0.58 (0.51, 0.67**)
[a] *Most hospitalized patients with COVID-19 should be treated in an ICU.*	False	25	0.64 (0.61, 0.66)	0.66 (0.63, 0.68)	1.10 (0.94, 1.27)
The CDC recommends using corticosteroids for COVID-19 patients with acute respiratory distress syndrome (ARDS).	False	176	0.53 (0.50, 0.56)	0.62 (0.58, 0.65)	**1.42 (1.19, 1.7**0)
COVID-19 is the first coronavirus to cause disease in humans.	False	27	0.94 (0.93, 0.95)	0.95 (0.94, 0.96)	1.11 (0.85, 1.45)
[a] *Patients with shortness of breath, fever, and cough should call the emergency room prior to arrival.*	True	21	0.91 (0.90, 0.92)	0.87 (0.85, 0.88)	**0.64 (0.52, 0.78)**
Patients whose first (early) symptoms are severe are more likely to die from COVID-19 than those whose first (early) symptoms are less severe.	False	47	0.78 (0.75, 0.80)	0.77 (0.74, 0.79)	0.94 (0.78, 1.13)
[a] *Children ages 5 and under are at higher risk of death from COVID-19.*	False	33	0.86 (0.84, 0.88)	0.90 (0.88, 0.91)	**1.45 (1.18, 1.79**)
In someone who has not received the measles vaccine, measles is more contagious than COVID-19.	True	62	0.45 (0.42, 0.48)	0.41 (0.38, 0.43)	**0.83 (0.71, 0.97)**
The incubation period for the coronavirus that causes COVID-19 is up to 21 days.	False	39	0.49 (0.46, 0.51)	0.46 (0.43, 0.49)	0.90 (0.77, 1.03)
[a] *Healthy people should wear facemasks to help prevent the spread of COVID-19.*	False	20	0.84 (0.82, 0.85)	0.86 (0.85, 0.88)	**1.22 (1.03, 1.46)**
[a] *A vaccine for COVID-19 should be available within approximately 3 months.*	False	26	0.89 (0.88, 0.91)	0.93 (0.92, 0.94)	**1.67 (1.33, 2.11)**
CDC recommends the use of alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol.	True	34	0.94 (0.92, 0.95)	0.93 (0.92, 0.94)	0.89 (0.69, 1.16)

Currently, the CDC recommends that everyone with COVID-19 symptoms should get tested.	False	28	0.59 (0.56, 0.61)	0.46 (0.44, 0.48)	**0.60 (0.53, 0.69)**
[a] *Everyone who tests positive for COVID-19 should be treated with hydroxychloroquine (Plaquenil ®) or chloroquine.*	False	39	0.93 (0.92, 0.94)	0.95 (0.94, 0.96)	**1.40 (1.07, 1.85)**
[a] *COVID-19 testing is not recommended for individuals with no symptoms, even if they were exposed to someone with confirmed COVID-19 within the past 2 weeks.*	True	20	0.70 (0.68, 0.72)	0.72 (0.70, 0.74)	1.08 (0.93, 1.26)
Total Score (15-Item)		616	0.75 (0.75, 0.76)	0.74 (0.74, 0.75)	**0.94 (0.90, 0.98)**
Total Score (8-Item)		616	0.79 (0.79, 0.80)	0.79 (0.78, 0.80)	0.98 (0.93, 1.04)

OR = Odds Ratio; CL = Confidence Limits

Statistically significant comparisons are **bolded** (adjusted *p < 0.05 for individual items; p < 0.05 for 8- and 15-item composites*)

[a] Item belongs to selected 8-item subset.

[b] Correct response according to information publically available from the Centers for Disease Prevention and Control website as of the date the survey was distributed (03/25/2020).

[c] Simple imputation was used for confidence items where respondents answered the knowledge component, but skipped the corresponding confidence component (N = 170 imputed confidence level values). After imputing confidence levels, any item missing a knowledge response was also missing a confidence level, and vice versa.

[d] The statistical model used to calculate weighted predicted probabilities of correct responses (and corresponding 95% confidence limits) while accounting for the corresponding confidence in the response excluded N = 616 missing knowledge response questions and N = 616 missing weight values. Note that N = 616 reflects the number of items, not the number of patient respondents.

[e] N = 28 respondents were missing values for age or provided typographical error values in the field [e.g. > 600 years] (excluded N = 28 respondents; N = 420 missing fixed [subject] effects). N = 5920 patient respondents were included in the analysis for a total of N = 88196 observations used.

Supplemental Table 4. Knowledge by Sex Subgroups (N=5948)					
Question	**Correct [b]**	**Missing Knowledge Response and Confidence Weight (N) [c]**	**Weighted Item-Level [d] Stratified by Sex[e]**		**Modeling Probability of Correct Response**
			Female (N = 4006)	**Male (N = 1883)**	**OR (95% CL) Male vs. Female**
[a] Treatments for the symptoms of COVID-19 are available without a prescription.	True	19	0.43 (0.41, 0.45)	0.38 (0.35, 0.41)	**0.80 (0.69, 0.93)**
[a] Most hospitalized patients with COVID-19 should be treated in an ICU.	False	25	0.63 (0.61, 0.65)	0.68 (0.65, 0.70)	**1.21 (1.03, 1.42)**
The CDC recommends using corticosteroids for COVID-19 patients with acute respiratory distress syndrome (ARDS).	False	176	0.56 (0.53, 0.58)	0.61 (0.57, 0.65)	**1.26 (1.03, 1.53)**
COVID-19 is the first coronavirus to cause disease in humans.	False	27	0.94 (0.93, 0.95)	0.96 (0.95, 0.97)	**1.45 (1.07, 1.96)**
[a] Patients with shortness of breath, fever, and cough should call the emergency room prior to arrival.	True	21	0.91 (0.90, 0.92)	0.84 (0.82, 0.86)	**0.51 (0.42, 0.63)**
Patients whose first (early) symptoms are severe are more likely to die from COVID-19 than those whose first (early) symptoms are less severe.	False	47	0.77 (0.75, 0.79)	0.77 (0.74, 0.79)	0.97 (0.79, 1.18)
[a] Children ages 5 and under are at higher risk of death from COVID-19.	False	33	0.89 (0.87, 0.90)	0.86 (0.84, 0.88)	0.81 (0.66, 1.01)
In someone who has not received the measles vaccine, measles is more contagious than COVID-19.	True	62	0.41 (0.39, 0.44)	0.46 (0.42, 0.49)	1.18 (1.00, 1.39)
The incubation period for the coronavirus that causes COVID-19 is up to 21 days.	False	39	0.49 (0.46, 0.51)	0.45 (0.42, 0.48)	0.86 (0.74, 1.00)
[a] Healthy people should wear facemasks to help prevent the spread of COVID-19.	False	20	0.86 (0.85, 0.88)	0.82 (0.79, 0.84)	**0.71 (0.59, 0.85)**
[a] A vaccine for COVID-19 should be available within approximately 3 months.	False	26	0.90 (0.89, 0.92)	0.93 (0.91, 0.94)	**1.35 (1.05, 1.73)**
CDC recommends the use of alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol.	True	34	0.93 (0.92, 0.94)	0.93 (0.91, 0.94)	0.94 (0.71, 1.23)

Currently, the CDC recommends that everyone with COVID-19 symptoms should get tested.	False	28	0.55 (0.53, 0.57)	0.47 (0.44, 0.50)	**0.71 (0.61, 0.82)**
[a] *Everyone who tests positive for COVID-19 should be treated with hydroxychloroquine (Plaquenil ®) or chloroquine.*	False	39	0.94 (0.93, 0.95)	0.95 (0.93, 0.96)	1.16 (0.87, 1.56)
[a] *COVID-19 testing is not recommended for individuals with no symptoms, even if they were exposed to someone with confirmed COVID-19 within the past 2 weeks.*	True	20	0.72 (0.71, 0.74)	0.68 (0.65, 0.71)	**0.81 (0.69, 0.96)**
Total Score (15-Item)		616	0.75 (0.75, 0.76)	0.74 (0.73, 0.75)	**0.94 (0.90, 0.98)**
Total Score (8-Item)		616	0.80 (0.79, 0.80)	0.78 (0.77, 0.79)	**0.89 (0.83, 0.94)**

OR = Odds Ratio; CL = Confidence Limits

Statistically significant comparisons are **bolded** (adjusted *p < 0.05 for individual items; p < 0.05 for 8- and 15-item composites*)

[a] Item belongs to selected 8-item subset.

[b] Correct response according to information publically available from the Centers for Disease Prevention and Control website as of the date the survey was distributed (03/25/2020).

[c] Simple imputation was used for confidence items where respondents answered the knowledge component, but skipped the corresponding confidence component (N = 170 imputed confidence level values). After imputing confidence levels, any item missing a knowledge response was also missing a confidence level, and vice versa.

[d] The statistical model used to calculate weighted predicted probabilities of correct responses (and corresponding 95% confidence limits) while accounting for the corresponding confidence in the response excluded N = 616 missing knowledge response questions and N = 616 missing weight values. Note that N = 616 reflects the number of items, not the number of patient respondents.

[e] N = 59 respondents were missing values for sex, provided a non-binary response, or reported that they would 'Prefer not to answer' (excluded N = 59 respondents; N = 885 missing fixed [subject] effects). N = 5889 patient respondents were included in the analysis for a total of N = 87722 observations used.

Supplemental Table 5. Efficacy Beliefs and Willingness to Follow Behaviors Proposed by CDC Recommendations and Guidelines								
N = 5944 **ICC (95% CL)** **0.76 (0.72, 0.80)**		***Avoiding Travel Belief vs. Follow***						
		Will you follow avoiding travel?						
		Missing	Certainly not	Probably not	Maybe	Probably yes	Most certainly	*Total*
Do you think that avoiding travel will decrease the spread of COVID-19 in your community?	*Missing*	***4 (0.1)***	*1 (0.0)*	*1 (0.0)*	*1 (0.0)*	*8 (0.1)*	*51 (0.9)*	*66 (1.1)*
	Certainly not	*0 (0.0)*	10 (0.2)	1 (0.0)	2 (0.0)	2 (0.0)	3 (0.1)	*18 (0.3)*
	Probably not	*1 (0.0)*	6 (0.1)	23 (0.4)	17 (0.3)	14 (0.2)	10 (0.2)	*71 (1.2)*
	Maybe	*4 (0.1)*	3 (0.1)	21 (0.4)	76 (1.3)	106 (1.8)	78 (1.3)	*288 (4.8)*
	Probably yes	*7 (0.1)*	8 (0.1)	5 (0.1)	56 (0.9)	474 (8.0)	713 (12.0)	*1263 (21.2)*
	Most certainly	*31 (0.5)*	9 (0.2)	7 (0.1)	22 (0.4)	179 (3.0)	3994 (67.2)	*4242 (71.3)*
	Total	*47 (0.8)*	*37 (0.6)*	*58 (1.0)*	*174 (2.9)*	*783 (13.2)*	*4849 (81.5)*	**5948**
N = 5944 **ICC (95% CL)** **0.59 (0.56, 0.62)**		***Elbow Covering Belief vs. Follow***						
		Will you follow coughing or sneezing into your elbow?						
		Missing	Certainly not	Probably not	Maybe	Probably yes	Most certainly	*Total*
Do you think that coughing or sneezing into your elbow will decrease the spread of COVID-19 in your community?	*Missing*	***4 (0.1)***	*0 (0.0)*	*1 (0.0)*	*1 (0.0)*	*2 (0.0)*	*45 (0.8)*	*53 (0.9)*
	Certainly not	*1 (0.0)*	10 (0.2)	1 (0.0)	6 (0.1)	6 (0.1)	8 (0.1)	*32 (0.5)*
	Probably not	*0 (0.0)*	2 (0.0)	16 (0.3)	28 (0.5)	49 (0.8)	77 (1.3)	*172 (2.9)*
	Maybe	*2 (0.0)*	3 (0.1)	10 (0.2)	61 (1.0)	171 (2.9)	471 (7.9)	*718 (12.1)*
	Probably yes	*17 (0.3)*	6 (0.1)	4 (0.1)	21 (0.4)	297 (5.0)	1289 (21.7)	*1634 (27.5)*
	Most certainly	*39 (0.7)*	4 (0.1)	2 (0.0)	4 (0.1)	89 (1.5)	3201 (53.8)	*3339 (56.1)*
	Total	*63 (1.1)*	*25 (0.4)*	*34 (0.6)*	*121 (2.0)*	*614 (10.3)*	*5091 (85.6)*	**5948**
ICC Not Reportable		***Hand Washing Belief vs. Follow***						

		Will you follow washing your hands often?			
		Missing	Certainly not + Probably not + Maybe	Probably yes + Most certainly	*Total*
Do you think that washing your hands often (for 20 seconds or more) will decrease the spread of COVID-19 in your community?	*Missing*	***1 (0.0)***	*0 (0.0)*	*24 (0.4)*	*25 (0.4)*
	Certainly not + Probably not + Maybe	*5 (0.1)*	37 (0.6)	300 (5.0)	*342 (5.8)*
	Probably yes + Most certainly	*62 (1.0)*	34 (0.6)	5485 (92.2)	*5581 (93.8)*
	Total	*68 (1.1)*	*71 (1.2)*	*5809 (97.7)*	**5948**
ICC Not Reportable		***Avoiding Infected Contact Belief vs. Follow***			
		Will you follow avoiding close contact with people who are sick (excluding patients, if you are a healthcare worker)?			
		Missing	Certainly not + Probably not + Maybe	Probably yes + Most certainly	*Total*
Do you think that avoiding close contact with people who are sick will decrease the spread of COVID-19 in your community?	*Missing*	***4 (0.0)***	*1 (0.0)*	*44 (0.7)*	*49 (0.8)*
	Certainly not + Probably not + Maybe	*0 (0.0)*	30 (0.5)	119 (2.0)	*149 (2.5)*
	Probably yes + Most certainly	*83 (1.4)*	58 (1.0)	5609 (94.3)	*5750 (96.7)*
	Total	*87 (1.5)*	*89 (1.5)*	*5772 (97.0)*	**5948**

Reported frequency (percent). The sample size reported for the ICC excludes only those respondents missing values for both measures.

Supplemental Table 6. Perceptions about Likelihood of Contraction and Severity of COVID-19 measured using quantitative survey and the corresponding qualitative themes

n = 5941
ICC (95% CL)
0.19 (0.16, 0.22)

COVID-19 Likelihood of Diagnosis vs. Concern of Diagnosis						
How concerned would you be if you were diagnosed with COVID-19 in the next year?						
Missing	**Not at all concerned**	**Not concerned**	**Slightly concerned**	**Concerned**	**Very concerned**	***Total***

Related Qualitative Themes & Quotes

Theme 3. Participants worry about becoming ill and contracting COVID-

	Missing	***7 (0.1)***	*3 (0.1)*	*3 (0.1)*	*8 (0.1)*	*13 (0.2)*	*26 (0.4)*	*60 (1.0)*	**related illness in themselves or loved ones.**
	Very unlikely	*13 (0.2)*	59 (1.0)	31 (0.5)	72 (1.2)	90 (1.5)	156 (2.6)	*421 (7.1)*	***"My concerns are for my 95 year old mother .., with underlying medical conditions. I am not concerned for myself."***
	Unlikely	*20 (0.3)*	10 (0.2)	54 (0.9)	211 (3.6)	341 (5.7)	335 (5.6)	*971 (16.3)*	
	Possibly	*72 (1.2)*	12 (0.2)	48 (0.8)	489 (8.2)	1304 (21.9)	1591 (26.8)	*3516 (59.1)*	**Theme 4. Participants concerned about issues related to epidemiologic and public health issues.**
How likely is it that you will be diagnosed with COVID-19 over the next year?	Likely	*14 (0.2)*	6 (0.1)	11 (0.2)	94 (1.6)	278 (4.7)	354 (6.0)	*757 (12.7)*	***"I worry that people aren't taking this seriously. Seeing social media posts about fellow Americans being cavalier about social distancing is very troublesome…they don't see the bigger picture"***
	Very Likely	*5 (0.1)*	9 (0.2)	7 (0.1)	20 (0.3)	49 (0.8)	133 (2.2)	*223 (3.8)*	**Theme 5. Participant anxieties were related to economic and societal disruptions.**
	Total	*131 (2.2)*	*99 (1.7)*	*154 (2.6)*	*894 (15.0)*	*2075 (34.9)*	*2595 (43.6)*	**5948**	***"The massive amount of layoffs and the economic impact of quarantines. That is going to have a potentially much further reaching and longer-lasting impact than lack of ventilators and hospital beds. "(***

Reported frequency (percent). The sample size reported for the ICC excludes only those respondents missing values for both measures.

Supplemental Table 7. Perceptions about Likelihood of Contraction and Severity of Influenza					
N = 5938 **ICC (95% CL)** **0.11 (0.07, 0.15)**		***Flu Likelihood vs. Concern of Diagnosis***			
		How concerned would you be if you were diagnosed with the flu in the next year?			
		Missing	Not at all concerned + Not concerned	Slightly concerned + Concerned + Very concerned	*Total*
How likely is it that you will be diagnosed with the flu over the next year?	*Missing*	***10 (0.2)***	*2 (0.0)*	*35 (0.6)*	*47 (0.8)*
	Very unlikely + Unlikely	*25 (0.4)*	693 (11.7)	1336 (22.5)	*2054 (34.5)*
	Possibly + Likely + Very Likely	*38 (0.6)*	1016 (17.1)	2793 (47.0)	*3847 (64.7)*
	Total	*73 (1.2)*	*1711 (28.8)*	*4164 (70.0)*	**5948**

Reported frequency (percent). The sample size reported for the ICC excludes only those respondents missing values for both measures.

Supplemental Table 8. Source and Media Type Preferences for Health and COVID-19 Information (n = 5948)

Information Source	What is your current, single most trusted source for information about health issues like COVID-19 (Please pick one). n (%)	What other information sources do you use for information about health issues like COVID-19? (Select all that apply). [a] n (%)	Qualitative Themes and Subthemes
Facebook	67 (1.1)	1157 (19.5)	**Theme 6. Respondents are distrustful of information provided by the federal government.**
Family & Friends	80 (1.3)	1416 (23.8)	
Instagram	4 (0.1)	123 (2.1)	
Internet: Government Websites (CDC, NIH, WHO)	2547 (42.8)	2397 (40.3)	*"I am very concerned about the number of people who refuse to believe responsible, authoritative sources because they have been conditioned by unscrupulous politicians and others to distrust any authority they don't agree with. This is a threat to our way of life and health."*
Internet: News Websites	439 (7.4)	2735 (46.0)	
Penn State Health Communications	550 (9.3)	2264 (38.1)	
Podcasts	32 (0.5)	274 (4.6)	
Print News	102 (1.7)	1125 (18.9)	
Television News Channels	1620 (27.2)	2961 (49.8)	
Twitter	25 (0.4)	256 (4.3)	
Radio	82 (1.4)	893 (15.0)	**Theme 7. Negative and unsettled perceptions about media coverage of the pandemic.**
Other Internet Sites	84 (1.4)	685 (11.5)	
Other Social Media	10 (0.2)	117 (2.0)	
Other	287 (4.8)	267 (4.5)	*"I am very frustrated watching the news and receiving differing information from different sources."*
No Response Indicated	*19 (0.3)*	*114 (1.9)*	
How would you like to receive NEW information? (Pick up to 3 answers) [a]			*"Sometimes difficult to sort out fact from fiction as the mass media races to deliver that next scoop."*
Written (a letter)		822 (13.8)	
Electronic (e-mail)		3967 (66.7)	
Peer-reviewed journals or guidelines		1886 (31.7)	
Television announcements		3290 (55.3)	*"I continue to receive an overload of information through professional and organizational channels… repeated stimuli may be unnecessarily stressful"*
Radio announcements		791 (13.3)	
Internet		3173 (53.4)	
No Response Indicated		*86 (1.5)*	
Do you think you have enough information about the COVID-19 pandemic?			**Theme 8. Unanswered questions remain related to basic symptom management, testing and contagion.**
I have received enough information		2271 (38.2)	
I have MOST of the information I would like to know		2276 (38.3)	
I have received SOME of the information I would like to know		1008 (17.0)	
I need a lot more information		376 (6.3)	*"I would like to know what a person at home who may have these*
Missing		*17 (0.3)*	

Are you concerned that you have received incorrect information about the COVID-19 pandemic?		*symptoms can use to treat him or her to alleviate the symptoms."*
No	3581 (60.2)	*"I'd like to have a better understanding about tests. Where can we get one? Are they available? When should I get tested?"*
Yes	2318 (39.0)	*"How long you are deemed contagious if you have COVID."*
Missing	*49 (0.8)*	

Reported frequency (percent).

Note that the following two questions were asked separately and independently of one another: 1) 'What is your current, single most trusted source for information about health issues like COVID-19 (Please pick one).' and 2) 'What other information sources do you use for information about health issues like COVID-19? (Select all that apply).'; Therefore, it was possible for respondents to select their current, single most trusted source for information as one of their other information sources as well.

[a] Percentages for questions that allowed for multiple response selections reflect the entire analytical sample in the denominator. These responses were not mutually exclusive, and simply summarize the number of respondents indicating that particular response option (regardless of other additional selections indicated). Due to the nature of the question, missing responses cannot be separated from respondents who simply did not check any response option because none of the available responses applied or because they did not use any other information sources other than their current, single most trusted source. For this reason, the total number of respondents that did not make any indicated selection from the available options is reported, however these instances were not treated as missing responses to the question.