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THE STATE OF THE NATION:

A 50-STATE COVID-19 SURVEY

REPORT #9: WILL AMERICANS VACCINATE THEMSELVES AND THEIR CHILDREN AGAINST COVID-19?

USA, August 2020

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Report of August 4, 2020, v.1

From: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States

A joint project of:

Northeastern University, Harvard University, Rutgers University, and Northwestern University

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COVER MEMO

Summary Memo— August 3, 2020

The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States **Partners**: Northeastern University, Harvard University, Rutgers University, and Northwestern University

Authors: Roy H. Perlis (Harvard Medical School); David Lazer (Northeastern University); Katherine Ognyanova (Rutgers University); Matthew A. Baum (Harvard University); Mauricio Santillana (Harvard Medical School); James Druckman (Northwestern University); John Della Volpe (Harvard University); Alexi Quintana (Northeastern University); Hanyu Chwe (Northeastern University); and Matthew Simonson (Northeastern University)

From July 10 to 26 we conducted the seventh wave of a large, 50-state survey, some results of which are presented here. You can find previous reports online at www.covidstates.org.

Note on methods:

We surveyed 19,058 individuals across all 50 states plus the District of Columbia. The survey was conducted on 10-26 July 2020 by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity, age, and gender (for methodological details on the other waves, see covidstates.org). In addition to balancing on these dimensions, we reweighted our data using demographic characteristics to match the U.S. population with respect to race/ethnicity, age, gender, education, and living in urban, suburban, or rural areas. This was the seventh in a series of surveys we have been conducting since April 2020, examining attitudes and behaviors regarding COVID-19 in the United States.

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Will Americans vaccinate themselves and their children against COVID-19?

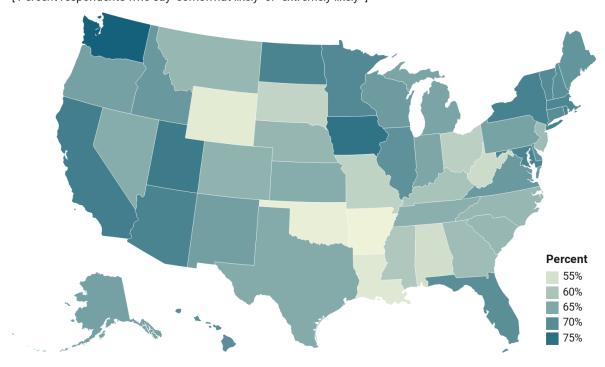
At least 5 companies have launched Phase III clinical trials of COVID-19 vaccines, the final step before seeking approval from the U.S. Food and Drug Administration (FDA). According to NIAID director <u>Anthony Fauci</u>, vaccines may be widely available in the U.S. by spring 2021 if these trials are successful.

But should these vaccines become available, will Americans accept them? Between July 10 and July 26, we surveyed 19,058 adults in all 50 U.S. states and the District of Columbia. We asked about the likelihood that they would seek vaccination for themselves, and for their children. We also asked about the factors that would influence their decision making.

We find that, overall, 66% of adults would be somewhat or extremely likely to vaccinate themselves; 66% would be somewhat or extremely likely to vaccinate their children. These rates vary markedly between states, as shown on the figure below.

Americans likely to get a COVID-19 vaccine when available

If a vaccine against COVID-19 was available to you, how likely would you be to get vaccinated? [Percent respondents who say "somewhat likely" or "extremely likely"]



National sample, N = 19,058, Time period: 7/10/2020-7/26/2020

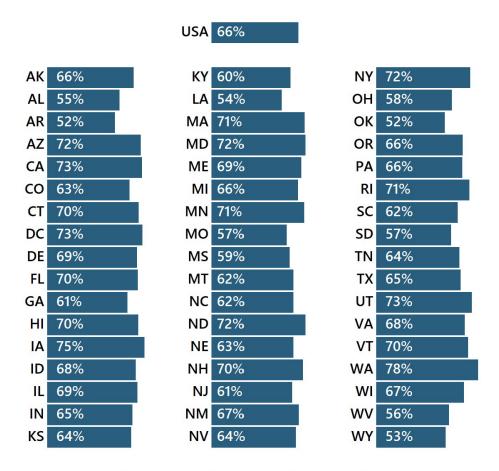
Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A joint project of: Northeastern University, Harvard University, Rutgers University, and Northwestern University) www.covidstates.org

• Created with Datawrapper

Rates are below 60% in 10 states: Alabama, Arkansas, Louisiana, Mississippi, Missouri, Ohio, Oklahoma, South Dakota, West Virginia, and Wyoming, and greater than 70% in 11 states: Arizona, California, Iowa, Maryland, Massachusetts, Minnesota, North Dakota, New York, Rhode Island, Utah, and Washington, as well as in the District of Columbia. Notably, estimates suggest that 70-90% of the population may need to be protected from infection in order to achieve herd immunity, the point at which spread of infections like COVID-19 can be kept under control (and eventually decline) even if not everyone is protected.

Proportion of Americans likely to get a COVID-19 vaccine

If a vaccine against COVID-19 was available to you, how likely would you be to get vaccinated? [Percent respondents who say "somewhat likely" or "extremely likely"]

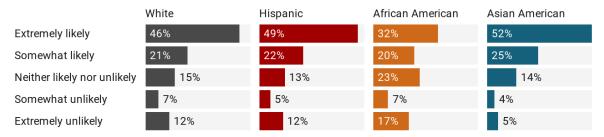


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The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A joint project of: Northeastern University, Harvard University, Rutgers University, and Northwestern University) www.covidstates.org

Vaccination likelihood by race and ethnicity

If a vaccine against COVID-19 was available to you, how likely would you be to get vaccinated?



National sample, N = 19,058, Time period: 7/10/2020-7/26/2020

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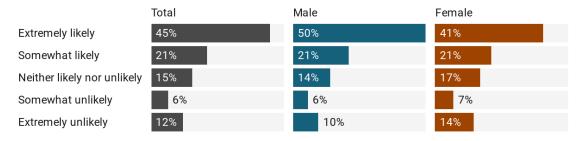
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The impact of COVID-19 has been disproportionate among non-white Americans, in terms of infection rates, hospitalizations, and deaths. The likelihood of seeking vaccination also varied markedly by racial and ethnic group. While 67% of whites, 71% of Hispanics, and 77% of Asian American respondents say they were likely to seek a vaccine, 52% of African American respondents are likely to do so. Those with lower levels of education, and lower incomes, are also less likely to seek a vaccine.

For example, only 58% of those without a complete high school education say they plan to get vaccinated, compared to 78% of those with at least a bachelor's degree. 59% of those who earn less than \$25,000 anticipate vaccinating, compared to 78% of those who earn more than \$100,000.

Vaccination likelihood by gender

If a vaccine against COVID-19 was available to you, how likely would you be to get vaccinated?



National sample, N = 19,058, Time period: 7/10/2020-7/26/2020

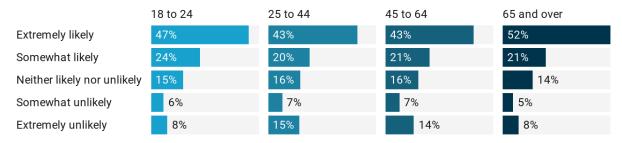
Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A joint project of: Northeastern University, Harvard University, Rutgers University, and Northwestern University) www.covidstates.org

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Rates also differed by gender, with women (62%) less likely to say they would pursue vaccination than men (71%). Both young adults (18-24) and older adults (65+) more often say they would be likely to be vaccinated (71 and 73% respectively) than those ages 25-44 and 45-64(63 and 64%).

Vaccination likelihood by age

If a vaccine against COVID-19 was available to you, how likely would you be to get vaccinated?



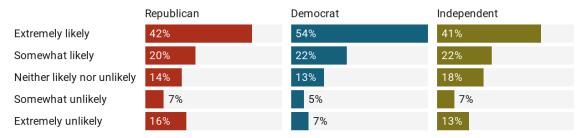
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Our surveys have consistently demonstrated substantial differences in COVID-19 prevention behaviors, including mask-wearing, by political party. For example, among Republicans, 64% state they are very closely following recommendations about wearing a mask outside of their home, versus 84% of Democrats and 72% of Independents. We likewise see gaps in likelihood of seeking vaccination based on party affiliation: 62% of Republicans say they would be likely to seek vaccination, compared to 75% of Democrats. While Independents are sometimes intermediate between Republicans and Democrats in their survey responses, here they look more similar to Republicans: 62% say they would pursue vaccination. Those who wear masks consistently are more likely to seek vaccination, although the two behaviors are not perfectly correlated; 47% of those who say they are not following mask-wearing guidelines very closely say they were likely to seek vaccination, compared to 73% among those who say they were following guidelines very closely.

Vaccination likelihood by political party

If a vaccine against COVID-19 was available to you, how likely would you be to get vaccinated?



National sample, N = 19,058, Time period: 7/10/2020-7/26/2020

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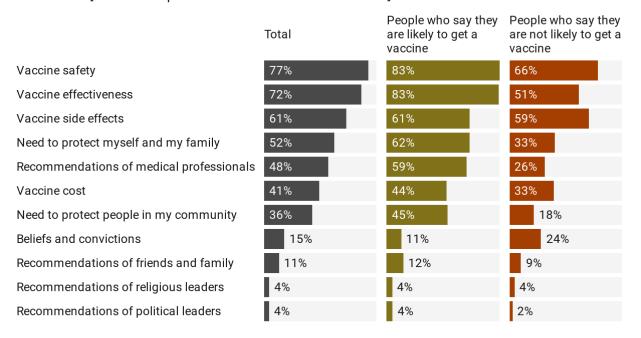
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Any vaccine is unlikely to provide perfect protection against COVID-19. The U.S. FDA <u>has</u> <u>stated</u> that a vaccine would need to protect at least 50% of those vaccinated to receive approval. We ask survey respondents about their likelihood of pursuing vaccination if a vaccine were 30, 50, 70, or 90% effective. As efficacy increases from 30 to 90%, likelihood of vaccination increases from 49% to 73%; at the FDA threshold of 50% efficacy, 55% say they are likely to be vaccinated.

Most important factors for the decision to get vaccinated

Which of the following factors would be most important for your decision to get vaccinated against COVID-19? [Percent respondents who selected each factor]



National sample, N = 19,058, Time period: 7/10/2020-7/26/2020

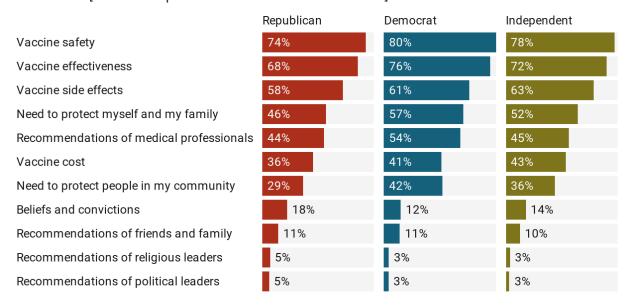
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To understand other factors that might be important in deciding whether to be vaccinated, we ask respondents to identify the items on a list of 11 possible factors that would be most important. For those who say they were likely to be vaccinated, 62% identify the need to protect themselves and their families as a motivation. 45% cite protecting people in their community; 59% identify recommendations of medical professionals as a factor. For those who say they were less likely, 33% prioritize protecting themselves and their families and 18% protecting the community, with 26% identifying recommendation of a medical professional as an important consideration.

These results suggest that, in designing public health strategies to increase vaccine acceptance, desire to protect others or follow medical advice may not be effective motivations for a majority of those not planning to seek vaccination. Major reasons for deciding whether to be vaccinated also differ somewhat by political affiliation.

Most important factors for the decision to get vaccinated by political party

Which of the following factors would be most important for your decision to get vaccinated against COVID-19? [Percent respondents who selected each factor]



National sample, N = 19,058, Time period: 7/10/2020-7/26/2020

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(We also find that respondents living in areas with a greater number of cases reported in the prior week are more likely to state that they are likely to seek vaccination, but in further analysis these effects are better explained by other differences in age, gender, race/ethnicity, income, and education.)

We next examine whether trust in institutions to manage COVID-19 response is associated with the probability of seeking vaccination. Those with more trust in doctors and hospitals were more likely to seek vaccination (from 20% among those who trust 'not at all', to 77% among those who trust 'a lot'); the pattern was similar for those with more trust in scientists and researchers(from 18% to 80%). Trust in the news media also related to likelihood of vaccination (from 48 to 82%) as did trust in social media companies (from 55 to 83%).

For city and state government, we observe similar patterns, with greater trust associated with greater likelihood of vaccination (43 to 81%, and 44 to 81%, respectively). Trust in the Centers for Disease Control and Prevention shows even greater effects (for those with the least trust, 24%; for those with the greatest trust, 81%). The exception to this pattern is trust in President Trump: among those with the least trust, 72% were likely to seek vaccination, while among those with the greatest trust, 61% were likely to seek vaccination.

Table 1. If a vaccine against COVID-19 was available to you, how likely would you be to get vaccinated?												
State	Extremely unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Extremely likely	Error Margin	N					
National	12	6	15	21	45	0	19027					
AK	10	7	17	22	45	11	128					
AL	15	10	20	17	39	6	436					
AR	19	7	22	21	31	6	387					
AZ	11	3	15	25	46	8	331					
CA	11	5	11	21	52	6	546					
СО	15	9	13	16	47	7	365					
СТ	9	9	13	22	48	6	404					
DC	7	4	16	16	57	7	276					
DE	10	7	14	26	43	8	285					
FL	10	6	15	24	46	6	489					
GA	12	8	19	22	40	6	432					
ні	10	5	15	18	51	8	291					
IA	9	4	13	22	53	6	409					
ID	14	6	12	18	49	6	350					
IL	9	8	15	21	48	6	470					
IN	12	10	13	24	41	7	318					
KS	13	7	15	20	44	6	365					
KY	13	9	18	21	39	6	389					
LA	18	9	20	23	31	6	403					

State	Extremely unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Extremely likely	Error Margin	N
MA	11	6	13	26	45	6	362
MD	9	5	15	22	50	6	462
ME	14	6	11	22	47	7	314
MI	16	4	14	17	49	7	365
MN	9	5	16	18	53	6	382
МО	14	10	18	15	42	6	357
MS	15	11	15	22	38	7	374
MT	14	5	18	16	46	7	290
NC	17	7	13	21	42	6	429
ND	8	10	11	26	46	9	208
NE	15	4	19	21	42	7	335
NH	12	6	12	22	48	7	314
NJ	11	5	22	18	44	7	390
NM	14	6	14	23	43	8	335
NV	14	6	16	19	46	7	432
NY	8	6	14	22	50	6	464
ОН	12	8	22	18	40	5	479
ОК	21	9	18	20	32	7	382
OR	16	5	13	20	46	6	397
PA	14	6	14	23	43	6	478
RI	8	8	13	17	54	7	321
SC	17	5	15	21	42	6	421
SD	19	7	17	27	31	7	256
TN	14	6	16	23	41	6	468
TX	10	6	20	27	38	6	484
UT	7	7	13	22	51	6	440
VA	13	6	13	15	53	6	402
VT	14	5	11	24	46	8	202
WA	9	4	9	24	54	6	445
WI	12	8	13	20	48	6	445
WV	16	9	19	23	33	7	363
WY	14	10	23	13	40	10	157