



NATIONAL CENTER FOR HEALTH STATISTICS

# Rapid Survey Systems (RSS)

## RSS-5 Cognitive Interviewing Report



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## Introduction

The National Center for Health Statistics (NCHS) seeks to evaluate questions included on the fifth round of the Rapid Surveys System (RSS-5). RSS is designed to produce timely estimates on emerging and relevant public health–related topics. Given the short timeline that RSS operates under, the more typical workflow of conducting cognitive interviews as a pretest before a survey is fielded is not possible. Rather, the cognitive interviews for RSS-5 were conducted shortly after the survey’s field period, and the findings presented in this report can help inform interpretation of the survey results. For RSS-5, 16 cognitive interviews were completed from October–December 2025.

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## Background

RSS is intended for situations in which decision makers’ need for time-sensitive data of known quality about emerging and priority health concerns is a higher priority than their need for statistically unbiased estimates.

NCHS’s traditional household surveys generate robust nationally representative statistics using methods that maximize relevance, accuracy, and reliability. Whereas NCHS’s gold standard sampling, interviewing, and post-processing strategies are pivotal for examining national yearly trends in disease and behavioral risk factors and differences across demographic and geographic groups, they are less flexible when responding to short-term challenges to public health. As a result, the Centers for Disease Control and Prevention (CDC) uses other data sources to identify and track emerging public health threats, such as those associated with disease outbreaks. During the COVID-19 pandemic, the implications of unknown data quality from some public health surveillance approaches became clearer. In response, CDC is working to better understand the limits of its public health surveillance systems and to develop a mechanism that facilitates collection of time-sensitive survey data with known quality. To that end, the NCHS RSS has three major goals: (1) to provide CDC and partners with time-sensitive data of known quality about emerging and priority health concerns, (2) to increase NCHS’s expertise in online panel use and to evaluate the quality of public health estimates generated from commercial online panels, and (3) to improve methods to appropriately communicate the fitness for use of public health estimates generated from commercial online panels.

RSS will examine the ability of panel data to represent the U.S. adult population. Depending on the sample size, topic, and analytic goals, estimates for specific subpopulations defined by demographics or socioeconomic characteristics can be generated. RSS uses NORC's AmeriSpeak panel and Ipsos's KnowledgePanel, two commercially available probability-based online panels, to create a platform designed to produce national estimates from the combined results. RSS includes multiple mechanisms to evaluate the resulting survey data for its appropriateness for use in public health surveillance and research, including cognitive interviewing.

Cognitive testing for RSS-5 focused on questions about children that were asked of parents or guardians with minor children living in their home. Topic areas included the child's demographic characteristics, childhood experiences, attitudes on childhood vaccines, and child disability. There were also two questions administered after these topic areas that assessed the participant's confidence in the accuracy of their responses.

Two different sets of questions asking about functional limitations the child could have were administered. These sets of questions were presented in randomized order and a single probe was administered after the second set of functional limitation questions. Spontaneous feedback was offered during administration of both sets of questions. One set of questions comes from The Washington Group on Disability Statistics and the second set is included as part of the American Community Survey (ACS). These two question sets of on functional limitations were not asked sequentially and were separated in the instrument by questions about the child's anxiety and depression, COVID, health insurance, SNAP participation, food insecurity, positive childhood experiences, and attitudes on childhood vaccines.

RSS-5 also included demographic questions such as the adult respondent's age, race, ethnicity, and sex; calibration variables such as civic engagement and languages spoken at home; and benchmarking questions such as chronic conditions and access and use of medical care.

There was an embedded experiment in this round of RSS. Participants were divided into two groups and each group saw alternate versions of two questions about the COVID-19 vaccine. These differences are discussed in the Question-by-Question Findings.

## Methodology

### Cognitive Interviewing

Cognitive interviewing focuses on participants' cognitive process while completing a survey.<sup>1,2</sup> Interviewers are interested in identifying survey elements that invoke unnecessary cognitive burden or that prevent respondents from effectively comprehending, recalling, judging, and reporting proper answers to questions. Interviewers are also interested in differences in the cognitive process by key subgroups and in how participant interpretation of the questions could impact results.

Cognitive interviewing consists of one-on-one interviews to assess general comprehension, clarity of question and response wording, effectiveness of skip logic, and visual aids in a survey. The goal is to gain an understanding of how well the questions work when administered to a sample of the survey's target population. The interviews follow a protocol with some general pre-scripted probes. Cognitive interviewers are trained to instruct the participant on thinking aloud and to encourage that behavior, and to use spontaneous probing to fully understand a participant's response. Cognitive interviewing works best for:

- Learning about the thought process respondents use in answering the questions
- Probing deeper into the response process
- Observing nonverbal, human reactions
- Testing navigation in self-administered modes
- Examining new items for potential for measurement error
- Gauging opinions on the survey as a whole

### Sample and Respondent Recruitment

For RSS-5, recruitment for cognitive interviewing focused on recruiting parents or guardians with minor children in their homes. These participants were recruited as part of a demographically diverse, purposive qualitative sample.

Advertisements were placed online asking potential participants to fill out a screener online. This screening process allowed a diverse but nonrandom sample to be created for these interviews.

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<sup>1</sup> Willis, G. (2005). *Cognitive Interviewing: A Tool for Improving Questionnaire Design*. Thousand Oaks, CA: Sage Publications.

<sup>2</sup> Miller, K., Willson, S., Chepp, V., and Padilla, J. (Eds.). (2014). *Cognitive Interviewing Methodology*. Hoboken, NJ: Wiley and Sons.

## Data Collection and Analysis

### Data Collection

All cognitive interviews were conducted virtually, using Zoom. Interviews lasted no more than 60 minutes, and all participants received a \$50 electronic Visa gift card for participating even if they ended the interview early. When the interview was scheduled, participants received a link to a consent form for them to read and sign. Prior to beginning the interview, the interviewer reviewed key information from the consent form with the participant and answered any questions they had. Interviewers also obtained verbal consent for participation in the interview, consent for observation by RSS staff, and consent for audio and video recordings.

Interviewers shared their screen with participants, displaying the web version of the questionnaire. Participants were asked to read the questions aloud and tell the interviewer how they would respond if answering the survey on their own. Participants were asked to think aloud when answering the survey questions. Participants were shown all questions in the web instrument; however, cognitive interviewers only probed on the five new, emerging, or supplemental topics specifically included in RSS-5. Interviewers probed these topics to better understand how participants decided on their answer and to assess participant understanding of the question. Participants could refuse to answer any question they did not want to answer.

Participants were assigned to either the Ipsos version or the NORC version of the instrument. Although the visual presentation of the web instrument differed between these two versions, the question text and response options were identical.

### Data Analysis

To facilitate analysis, all interviews were both video and audio recorded. Recordings allowed the interviewer to fully engage with the participant and concentrate during the interview without focusing on notetaking during the discussion. Using the recordings, interviewers created summary notes about how the participant answered the survey questions, how participants decided on their responses to survey questions, and their interpretation and understanding of the survey items, as evidenced by both summary and verbatim statements. Summary notes were entered into a template with each summary labeled with the participant ID. The notes did not contain any personally identifiable information, maintaining participant confidentiality throughout analysis. The summary notes were analyzed using thematic analysis, a method for analyzing

qualitative data that involves reviewing a set of data and looking for patterns in the meaning of the data to identify themes.<sup>3</sup>

Though 16 interviews were completed, one participant was not a parent or guardian to a child living in their household and did not receive the key questions or probes. That interview has been removed from the analysis. Table 1 displays the demographic characteristics of the remaining 15 cognitive interview participants.

**Table 1. Cognitive Interview Participant Characteristics**

Participant Characteristic	Number of Participants	Participant Characteristic	Number of Participants
<b>Race</b>		<b>Education</b>	
American Indian or Alaska Native	2	Less than high school diploma	0
Asian	0	High school diploma or equivalent	2
Black or African American	6	Some college, no degree	3
Middle Eastern or North African	0	Associate's degree	1
Native Hawaiian and Pacific Islander	0	Bachelor's degree	7
Other	0	Post-bachelor's degree	2
White	8	No formal education	0
<b>Hispanic or Latino (Yes)</b>	4	<b>Youngest Child's Age</b>	8
<b>Age</b>		0-3	5
18-29	1	4-6	3
30-49	13	7-17	7
50+	1		
<b>Sex</b>			
Male	2		
Female	13		

## Overall Findings

The cognitive interviews included survey questions and probes about selected questions from five topics that were specifically included on RSS-5 for parents to answer about their children. The other health and demographic characteristics described previously are recurring across rounds of RSS and are used for calibration and other methodological purposes. This section provides an overview of the findings from the specific RSS-5 topics.

<sup>3</sup> Clarke, V. & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology*, 12(3), 297-298.

1. *Sampled Child Characteristics.* Some participants had to consider the best way to report on their child's education in the last school year but were able to do so with minimal issues. This occurred in cases where the child had a non-traditional schooling arrangement, such as being predominately homeschooled but attending public school one day a week or changing between being homeschooled and attending public school in the same year.
2. *Positive Childhood Experiences.* Though participants were generally able to answer these questions without confusion, they did have a varied understanding of several of the questions. Participants differed widely on what they considered their neighborhood to be. Interpretations varied from their street only to an entire small city. Participants were also inconsistent in how they estimated the time their children spent doing certain activities. Participants found questions about time spent outside and questions asking about an "average week" difficult to answer because the behaviors they were reporting on were highly dependent on the season/weather and whether or not school was in session. This caused participants to answer based on different understandings of some questions.
3. *Attitudes on Childhood Vaccines.* Across widely varying comfort levels with childhood vaccines and different levels of vaccine hesitancy, respondents generally understood the questions consistently.
4. *Child Disability (WG and ACS).* There was no confusion or misunderstanding expressed when answering the child disability questions. Only one participant said "yes" to one question. Because of this, there are no question-by-question findings reported for these items.
5. *Knowledge Check.* All participants were confident in their responses throughout the survey and only participant said they would have check with a spouse about a single question they were unsure of.



## Question-by-Question Findings

Below are the cognitive interview findings for each topic probed on during the interviews. Findings include direct quotes from participants, where applicable. Questions were asked of all participants unless specified otherwise.

### Sampled Child Characteristics

The questions in this section asked demographic questions about the selected child, including gender and education.

<b>SCC_AGE</b>	How old is [FILL: SCNAME] in months?
<b>SCC_ENROLL</b>	Which of the following best describe <child's name>'s schooling during the 2023-24 school year?

*Frequency distribution (N = 11)*

Response Option	Count
<Child's name> had not yet started school.	2
<Child's name> attended a public, private, or charter school in-person for grades Pre-K to 12.	6
<Child's name> was homeschooled full time.	2
<Child's name> attended a virtual school full-time.	1
<Child's name> attended a college or university.	0

This question was asked of participants whose child was older than 3 years old. One participant explained that their child was enrolled in public school, then homeschooled for three months, before beginning the 2024-2025 school year in public school. This participant selected “homeschooled full time.” Another participant, who selected “homeschooled full time,” explained that her child goes to school one day a week, mostly to see the school counselor but the parent considers them homeschooled.

One participant changed their answer during probing for this question. They did not notice the question was asking specifically about the 2023-2024 school year and initially answered for the 2024-2025 school year. This participant's child is currently in public school, which was the initial answer, but was homeschooled for the 2023-2024 school year. The interviewer probed further to discover this comprehension errors, and the participant was able to answer correctly that their child was homeschooled after being told the correct time frame.

<b>SCC_DAYCARE</b>	<p>Does &lt;child's name&gt; attend daycare at least once a week?</p> <p><i>Include daycare centers and daycare provided in another person's home. Do not include care provided in your own home, such as a nanny or babysitter.</i></p>
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Frequency distribution (N = 6)

Response Option	Count
Yes	4
No	2

This question was asked of participants whose child was three years old or younger, if their child had not yet started school, regardless of age, or if the previous question was coded as missing data. The six participants who responded to this question were the four participants who did not answer the previous question due to their child's age and two participants who reported their child had not yet started school last year.

This item was not probed on during the cognitive interviews but there was no apparent misunderstanding or confusion among participants.

<b>SCC_RACE</b>	<p>For this next question, you may select more than one answer. What race or races is &lt;child's name&gt;?</p>
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Frequency distribution (N = 15)

Response Option	Count
American Indian or Alaska Native	1
Asian	1
Black or African American	6
Hispanic or Latino	2
Middle Eastern or North African	1
Native Hawaiian or Pacific Islander	0
White	8

\*Responses do not sum to 15. Participants could endorse more than one race.

This item was not probed on during the cognitive interviews. One participant did state that the question was "tricky" because they were mixed race. This person selected only one race as a response.

## Positive Childhood Experiences

This section asked questions about the participants' parental support and their neighborhood. This section also included questions about the sampled child's relationships and activities.

PCE_EMSUPP	During the past 12 months, was there someone that you could turn to for day-to-day emotional support with parenting or raising children?
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Frequency distribution (N = 15)

Response Option	Count
Yes	11
No	4

Fourteen participants mentioned family, spouses or significant others, friends and/or neighbors as people they were thinking of when answering this question.

Six of the participants who responded yes to this question specifically mentioned their own mother. One participant noted the importance of their mother when they had their first child.

*Just being a first-time mom, whenever he was a baby, going over things like what should I do here, or when he was sick, just about medication and if it was safe for him, things like that. Obviously she has 3 kids, I'm thinking about back when I was little, who would I turn to for support? I always thought my mom would be the best person to turn to.*

One participant, who answered "yes," did have some confusion about the meaning of this question. They were unsure if the question was asking about all family or just people that lived in their community.

*I mean, we have family members, so I'm not sure if this means, uh, like my neighbors or family members that live in the same town. But they don't live in my community per say. If I'm counting my family then I'd say yeah, but if I'm counting just my neighbors who live beside me, then I'd say no.*

PCE_RELHELP	How much do you agree or disagree with the following statement?  When someone in your family has problems, they can count on help from your relatives.
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Frequency distribution (N = 15)

Response Option	Count
Strongly agree	8
Somewhat agree	3
Somewhat disagree	1
Strongly disagree	3

Most participants focused on both material or practical help, such as lending money, babysitting, or offering a ride, and emotional support. However, some participants focused on either material or practical help or emotional support but did not include both types of help in their answer. One participant thought the term “problems” was vague and wasn’t sure what problems to include.

One participant, who selected “somewhat agree,” pointed that even if you can turn to family for help, they may not be in a position to give the help you need.

*When I read when someone in your family has problems, I mean we all have family members where they don't call you unless they need something. So when you're in a bind you call them, but they're not in a situation to help at all, because they just called you last week to see if you could help them.*

One participant thought this question could be sensitive for some respondents but did not have trouble answering for themselves.

PCE_HELPOTH	<p>How much do you agree or disagree with the following statement?</p> <p>When someone in your family has problems, they can count on help from your friends, neighbors, or other non-relative members of your community.</p>
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Frequency distribution (N = 15)

Response Option	Count
Strongly agree	3
Somewhat agree	8
Somewhat disagree	3
Strongly disagree	1

When answering this question, participants thought about their neighbors, friends, and community organizations and resources.

Most participants focused on individuals, such as neighbors, when answering this question. Three participants thought about community groups or resources in addition to individuals when answering this question, particularly food pantries.

*It seems like strangers or other people in your community help you a lot more, as far as resources, like food pantries or Christmas help places, stuff like that.*

One participant did think of their family when answering this question, but also thought of friends and neighbors. Another participant wasn't sure if this question was referring to help her extended family might need or if the question was asking only about their household. Despite these differences in interpretation, both participants were able to answer the question with minimal confusion.

Some participants expressed feeling disconnected socially from those around them. One participant noted this disconnection was related specifically to their child's disability.

*The truth is I don't have a lot of social connections at all because I have a disabled child. I don't have any friends nearby... we don't go to picnics, I don't have connections with the community. I don't have any time to do that, or any inclination.*

<b>PCE_PATHS</b>	<b>In your neighborhood, are there sidewalks or walking paths?</b>
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*Frequency distribution (N = 15)*

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	12
<b>No</b>	3

This item was not probed on during the cognitive interviews. However, three participants expressed confusion in how to answer this question when there are some sidewalks or walking paths in parts of their neighborhood but not throughout. One participated wanted a response option for “mixed”. Two of these participants selected “yes” while one selected “no” because the sidewalks are only on their street and not in the rest of the neighborhood.

<b>PCE_PARK</b>	<b>In your neighborhood, is there a park or playground?</b>
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*Frequency distribution (N = 15)*

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	10
<b>No</b>	5

This item was not probed on during the cognitive interviews. There was no apparent misunderstanding or confusion among participants.

<b>PCE_RECCOMM</b>	<b>In your neighborhood, is there a recreation center, community center, or Boys and Girls Club?</b>
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*Frequency distribution (N = 15)*

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	9
<b>No</b>	6

This item was not probed on during the cognitive interviews. There was no apparent misunderstanding or confusion among participants.

PCE_PLAYDAY	How safe is it for children to play outside during the day in your neighborhood?
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Frequency distribution (N = 15)

Response Option	Count
Very safe	8
Somewhat safe	7
Not at all safe	0

All participants felt their neighborhood was at least “somewhat safe” for their children to play outside during the day. Participants cited thinking about their comfort with their own children being outside, how often they have to check on their children if they are playing outside, and how they see other children in the neighborhood playing outside without supervision.

When asked what “safe” meant in this question, all participants gave examples of physical safety, and none considered emotional safety. Five participants noted that they are concerned about traffic, speeding, or busy roads in their neighborhood. Nine participants mentioned they were concerned about strangers interacting with their children and possible kidnapping. Seven participants were concerned about violent crime, particularly shootings in or near their neighborhoods. No participants considered these concerns strong enough to make their neighborhood “not at all safe.”

Participants had varying definitions of their neighborhood. Some participants thought of their street only, or within less than five blocks of their home. One participant considered their small city their neighborhood when answering this question. Two participants noted a specific distance of one to two miles from their home. Two participants specifically mentioned landmarks pertinent to their children, such as a park they go to or their school, as being defining points of their neighborhood.

<b>PCE_OUTDOORS</b>	<b>On an average weekend day, how much time does &lt;child's name&gt; spend outdoors?</b>
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Frequency distribution (N = 15)

Response Option	Count
Less than 1 hour per day	3
1-2 hours per day	4
2-3 hours per day	4
3-4 hours per day	1
4 or more hours per day	3

Participants had some trouble determining how to answer this question. Seven participants mentioned that this varies greatly based on the season or weather and since the interviews were conducted in winter, their children were less likely to be outside. Some participants answered based on an average winter weekend day while others responded with an average for the year. One participant deliberately excluded times when it was “not an option to go outside,” like in bad weather.

One participant expressed some confusion about if this was time their child was outside with them or unsupervised. This could be an artifact of probing on the previous questions, where this participant was thinking about safety while unsupervised outside.

<b>PCE_FRIENDS</b>	<b>Does &lt;child's name&gt; have difficulty making friends?</b>
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Frequency distribution (N = 8)

Response Option	Count
No difficulty	3
Some difficulty	2
A lot of difficulty	1
Cannot do at all	1

This question was asked of participants whose children were six years old or older. Participants thought of their child's social interactions with the general public as well as children of the same age. They considered whether their children are introverts or extroverts when it comes to making friends.

*He's a born Walmart greeter.*

*[Child] is an introvert so I've been trying to talk to him like, you know, make friends, at least have a friend or two. So yeah, it's been quite a journey.*



One participant noted that the difficulty making friends may not be because of the child's actions or behavior.

*No difficulty because he's very personable. Some because sometimes he can be shy, but it's hard to make friends and do stuff in this weird society where kids don't make plans. Especially in his age bracket.*

The participant who said their child cannot make friends at all noted their child is autistic and non-verbal.

<b>PCE_PLAYFRND</b>	<p>On an average week, how many days does &lt;child's name&gt; spend playing or hanging out with friends in person?</p> <p><i>Do not include time while at school, daycare, or aftercare.</i></p>
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Frequency distribution (N = 7)

Response Option	Count
4 or more days per week	0
1-3 days per week	3
Less than 1 day per week	1
Never	2

This question was asked of participants whose children were six years old or older and indicated "no difficulty," "some difficulty," or "a lot of difficulty" making friends.

One participant noted that the sampled child in their household is a twin who spends most of their time with their twin brother. They tried to exclude time spent with the twin brother when answering this question. One participant did not initially see the instruction to exclude time spent at school and revised their answer during probing.

Participants had varying definitions of "an average week." Most thought of the time period of a week, either five or seven days. Only one participant mentioned that their child had very different average weeks in summer versus during the school year. They chose to report an average week as being during the school year.

<b>PCE_VIDEOFRN</b>	<p>On an average week, how many hours does &lt;child's name&gt; spend talking with friends on video, voice chat such as during gaming, or phone calls?</p> <p><i>Do not include all screen time, only time when they use video, voice chat, or phone calls.</i></p>
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Frequency distribution (N = 7)

Response Option	Count
7 or more hours per week, or an hour or more per day	1
Between 5 and 7 hours per week	2
Between 1 and 4 hour(s) per week	2
Less than 1 hour per week	0
Never	2

This question was asked of participants whose children were six years old or older and indicated “no difficulty,” “some difficulty,” or “a lot of difficulty” making friends. When answering this question, two participants thought about their child’s gaming interactions. One specifically mentioned their teenage child using FaceTime to talk to their friends. One person noted their child is too young for screen time and doesn’t have a phone.

One participant included time spent talking to family, specifically a grandmother, in this answer.

All participants were sure of the accuracy of their response.

<b>PCE_RELFRND</b>	<p>How much do you think &lt;child's name&gt; could rely on &lt;his/her/their&gt; friends for help if &lt;he/she/they&gt; had a serious problem?</p>
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Frequency distribution (N =4)

Response Option	Count
A lot	0
Some	0
A little	3
Not at all	1

This question was asked of participants whose children were 12 years old or older and indicated “no difficulty,” “some difficulty,” or “a lot of difficulty” making friends.

Only participants with a child aged 12 to 14 received a probe after this question, asking how relevant this question was to their child. This probe was given to three of the four

participants who answered this question. All three participants thought the question was relevant to their child. One of these participants focused on how important this type of relationship was for their child, which made the question relevant.

*From my point of view, I feel like it's really important for him to have friends who can help them. Cause like, it's not all the times that I'll be there... So I feel like it's really relevant.*

<b>PCE_OPENFRND</b>	<b>How much do you think &lt;child's name&gt; can open up to &lt;his/her/their&gt; friends if &lt;he/she/they&gt; want(s) to talk about &lt;his/her/their&gt; worries?</b>
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*Frequency distribution (N = 6)*

<b>Response Option</b>	<b>Count</b>
<b>A lot</b>	1
<b>Some</b>	2
<b>A little</b>	2
<b>Not at all</b>	1

This question was asked of participants whose children were six years old or older and indicated “no difficulty,” “some difficulty,” or “a lot of difficulty” making friends. This item was not probed on during the cognitive interviews. There was no apparent misunderstanding or confusion among participants.

<b>PCE_SHARE</b>	<b>How well can you and &lt;child's name&gt; share ideas or talk about things that really matter?</b>
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*Frequency distribution (N = 8)*

<b>Response Option</b>	<b>Count</b>
<b>Very well</b>	4
<b>Somewhat well</b>	3
<b>Not very well</b>	0
<b>Not well at all</b>	1

This question was asked of participants whose children were six years old or older. This item was not probed on during the cognitive interviews. There was no apparent misunderstanding or confusion among participants.

PCE_RELADLT	Other than <you/you or other adults in your home>, is there at least one other adult in <child's name>'s school, neighborhood, or community who knows <child's name> well and who <he/she/they> can rely on for advice or guidance?
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Frequency distribution (N = 8)

Response Option	Count
Yes	5
No	3

This question was asked of participants whose children were six years old or older. When answering this question, participants thought of teachers, neighbors, friends, and therapists. Three participants mentioned other family members outside the household, specifically grandmothers.

*If she doesn't like talking about stuff to me, she usually talks to [grandmother] more, as far as who is bullying her at school, stuff like that.*

*He stays with his grandma after school so he's comfortable opening up to her.*

<b>PCE_ACTIVITY</b>	<b>For this next question, you may select more than one answer. Which, if any, of the following activities have you done with &lt;child's name&gt; within the last seven days?</b>
<b>PCE_ACTIVITYa</b>	<b>Read books or told stories together</b>
<b>PCE_ACTIVITYb</b>	<b>Cooked or enjoyed meals together</b>
<b>PCE_ACTIVITYc</b>	<b>Educational activities</b>
<b>PCE_ACTIVITYd</b>	<b>Spent time outdoors, including walks and sports</b>
<b>PCE_ACTIVITYe</b>	<b>Watched TV or other media together</b>
<b>PCE_ACTIVITYr</b>	<b>[IF AGE &gt;= 3] Played video games together</b>
<b>PCE_ACTIVITYg</b>	<b>[IF AGE &gt;= 3] Played board or card games together</b>
<b>PCE_ACTIVITYh</b>	<b>None of the above</b>

Frequency distribution (N = 15, N = 13 for [IF AGE>=3])

<b>Response Option</b>	<b>Count*</b>
<b>Read books or told stories together</b>	11
<b>Cooked or enjoyed meals together</b>	9
<b>Educational activities</b>	14
<b>Spent time outdoors, including walks and sports</b>	11
<b>Watched TV or other media together</b>	14
<b>[IF AGE &gt;= 3] Played video games together</b>	4
<b>[IF AGE &gt;= 3] Played board or card games together</b>	5
<b>None of the above</b>	0

\*Responses do not sum to 15. Participants could endorse more than one activity.

In general, participants found this list of activities to be comprehensive and easy to respond to. One participant with a 17-year-old child commented that they are beyond doing a lot of these things together.

Three participants noted that they were unsure of what “educational activities” included. Other participants included homework, college preparation, and playing with education toys or games.

When probed about activities missing from the list, participants suggested traveling or vacationing together, visiting family or friends, crafts, and playing with toys.

One participant, with a developmentally disabled and non-verbal child, suggested the question could be more inclusive to children with disabilities if the word “together” was replaced by “with” in the list activities. They spend a lot of time with their child but they aren’t really doing these activities together because of the child’s developmental delay.

<b>PCE_DISP1</b>	<b>Is &lt;child's name&gt; currently participating in any of the following at school or outside of school?</b>
<b>PCE_SPORTS</b>	<b>Organized sports, sports lessons, or practice</b>
<b>PCE_CLUBS</b>	<b>Clubs, organizations, organized lessons or practice, such as music, dance, language, or other arts</b>
<b>PCE_SERVICE</b>	<b>Community service or volunteer work at school, place of worship, or in the community</b>

*Frequency distribution (N = 8)*

<b>Response Option</b>	<b>Count</b>
<b>PCE_SPORTS</b>	
<b>Yes</b>	3
<b>No</b>	5
<b>PCE_CLUBS</b>	
<b>Yes</b>	5
<b>No</b>	3
<b>PCE_SERVICE</b>	
<b>Yes</b>	3
<b>No</b>	5

This question was asked of participants whose children were six years old or older. One participant ended their interview at this point due to time.

Participants gave accurate examples of sports, clubs, and service activities their children are involved in.

One participant noted that they appreciated asking about “sports lessons” because their child is not on a team but does take swimming lessons.

<b>PCE_DISP2</b>	<b>In an average week, does &lt;child's name&gt; spend any of their free time, that is, time outside of school or organized activities, doing the following?</b>
<b>PCE_ARTS</b>	<b>Music, writing, visual, or performing arts, such as playing an instrument at home, drawing, or writing poetry or stories</b>
<b>PCE_READING</b>	<b>Reading books or listening to audiobooks</b>

Frequency distribution (N = 8)

<b>Response Option</b>	<b>Count</b>
<b>PCE_ARTS</b>	
Yes	4
No	4
<b>PCE_READING</b>	
Yes	4
No	4

This question was asked of participants whose children were six years old or older,

Participants gave accurate examples of unstructured music, writing, dancing, and reading time their children do on their own. Some participants mentioned reading with their child.

For participants who reported their child reading in their free time, all four confirmed their child reads books they choose themselves and two also included books read for school.

Participants suggested some activities their children do, with or without the participant, that they felt were not covered in this or the previous question:

- Community center activities, e.g. a movie night
- Local library programming
- Taking care of animals
- Babysitting
- Yard work
- Part-time jobs
- Chess

<b>PCE_EXERCISE</b>	<b>During the past week, on how many days did &lt;child's name&gt; exercise, play a sport, or participate in physical activity for at least 60 minutes?</b>
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*Frequency distribution (N = 8)*

<b>Response Option</b>	<b>Count</b>
<b>0 days</b>	2
<b>1-3 days</b>	4
<b>4-6 days</b>	1
<b>Every day</b>	1

This question was asked of participants whose children were six years old or older. One participant ended their interview at this point due to time. There was no apparent difficulty understanding or answering this question. Participants considered gym and PE classes, recess, playing with pets, jogging, and “running and jumping around” when answering this question.

All participants were sure of their answer to this question.



PCE_DISP3	How much do you agree or disagree with the following statements about <child's name>s <u>current school</u> ?
PCE_CLOSESCH	<Child's name> feels close to people at school.
PCE_TEACHERS	Teacher's care about <child's name>.
PCE_PARTSCH	<Child's name> feels like part of the school.

Frequency distribution (N = 7)

Response Option	Count
PCE_CLOSESCH	
Strongly agree	0
Somewhat agree	4
Somewhat disagree	1
Strongly disagree	1
Skipped	1
PCE_TEACHERS	
Strongly agree	4
Somewhat agree	1
Somewhat disagree	1
Strongly disagree	1
Skipped	1
PCE_PARTSCH	
Strongly agree	2
Somewhat agree	4
Somewhat disagree	0
Strongly disagree	0
Skipped	1

This question was asked of participants whose children have started school. One participant chose to skip these questions because their child was homeschooled in the 2023-2024 school year, and they felt these questions were not relevant to them.

These items were not probed on during the cognitive interviews. There was no apparent misunderstanding or confusion among participants.

PCE_DISP4	How much do you agree or disagree with the following statements about your <u>current neighborhood</u> ?
PCE_CLOSENEI	[IF AGE >= 6] <Child's name> feels close to people in our neighborhood.
PCE_NEIGHBOR	[IF AGE >= 6] Our neighbors care about <child's name>.
PCE_PARTNEI	[IF AGE >= 6] <Child's name> feels like part of the neighborhood.

Frequency distribution (N = 8)

Response Option	Count
PCE_CLOSENEI	
Strongly agree	1
Somewhat agree	5
Somewhat disagree	0
Strongly disagree	2
PCE_NEIGHBOR	
Strongly agree	1
Somewhat agree	3
Somewhat disagree	1
Strongly disagree	2
PCE_PARTNEI	
Strongly agree	1
Somewhat agree	4
Somewhat disagree	1
Strongly disagree	2

This question was asked of participants whose children are six years old or older. These items were not probed on during the cognitive interviews. There was no apparent misunderstanding or confusion among participants.

## Attitude on Childhood Vaccines

The questions in this section ask about the sampled child's vaccine history, parental vaccine hesitancy, and knowledge and beliefs about vaccines.

<b>VAX_ALLREC</b>	<b>To the best of your knowledge, has &lt;child's name&gt; received all recommended childhood vaccines?</b>
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*Frequency distribution (N = 13)*

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	14
<b>No</b>	1

This question was asked of all participants whose child was at least 6 months old.

Participants found this question easy to answer and were sure of their responses. The participant who said "no" explained that their child does not have the HPV vaccine yet but has all other vaccines. Two participants mentioned knowing their child was up to date on vaccines because they have to be to attend public school. Several participants mentioned following doctor recommendations and always getting the vaccines when their doctor recommends.

There was no apparent misunderstanding or confusion when answering this question.

<b>VAX_FLU</b>	<b>There are two types of flu vaccinations. One is a shot and the other is a spray, mist, or drop in the nose. During the past 12 months, has &lt;child's name&gt; had a flu vaccination?</b>
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*Frequency distribution (N = 13)*

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	8
<b>No</b>	5

This question was asked of all participants whose child was at least six months old. Twelve participants were sure of their response to this question. Two participants mentioned their child received a flu shot recently, making it easy to remember, and two participants mentioned never having given their child a flu shot.

One participant noted it was difficult for them to remember if their child had a flu in the past 12 months. They selected "yes" but would have liked to confirm with their spouse.

<b>VAX_COVID</b>	<b>Has &lt;child's name&gt; had at least one dose of a COVID-19 vaccination?</b>
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*Frequency distribution (N = 13)*

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	8
<b>No</b>	5

This question was asked of participants whose children were at least six months old. These items were not probed on during the cognitive interviews. There was no apparent misunderstanding or confusion among participants.

<b>VAX_GARDASIL</b>	<b>Has &lt;child's name&gt; had at least one dose of the human papillomavirus (HPV) vaccine, sometimes called Gardasil?</b>
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*Frequency distribution (N = 4)*

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	2
<b>No</b>	2

This question was asked of participants whose children were 13 years old or older. When answering this question, one participant mentioned their child received this vaccine recently. Another participant mentioned they know their child received the HPV vaccine but did not recognize the name Gardasil. The two participants who said “no” to this question were sure of their responses because they are responsible for taking their children to the doctor.

Even though one participant did not recognize the vaccine brand name, there was no apparent difficulty or misunderstanding when answering this question.

<b>VAX_MMR</b>	<b>Has &lt;child's name&gt; had the measles vaccine, sometimes called MMR?</b>
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*Frequency distribution (N = 13)*

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	12
<b>No</b>	1

This question was asked of participants whose children were at least six months old. Twelve of the participants were sure of their answers. One participant, who said “yes,” was not “100% sure, but I’m pretty sure that they recommended that.”

The participant who said “no” to this question commented that their child did not have measles so getting the vaccine was not a concern.

There was no apparent difficulty recalling this information and using to answer the question as intended.

<b>VAX_HESCOVID</b>	<b>How hesitant about COVID-19 vaccines for children would you consider yourself to be?</b>
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Frequency distribution (N = 13)

Response Option	Count
Not at all hesitant	4
Not that hesitant	0
Somewhat hesitant	5
Very hesitant	4

Participants gave several reasons for their response to this question. Three participants noted they did not know much about the COVID-19 vaccine for children or they had heard it could do harm to their child. Two of these participants selected “somewhat hesitant” and one selected “very hesitant” as their response to this question. Two participants also said they knew adults who had the COVID-19 but still contracted COVID-19, leading them to doubt the effectiveness of the vaccine.

*Just because I don't really know what's in there. I know people who got the whole set of vaccinations but they still got COVID. And I feel like children, their immune system isn't really the best... So I was a little hesitant, but she was of a certain age where she could speak her mind too.*

One participant thought “hesitant” was too strong a word for their feelings.

*I don't care one way or another. I just doesn't [sic] see the need I guess. Hesitant is a very strong word, like 'oh my god, I'm afraid of something.' So, I don't even know how to – not at all hesitant I guess.*

<b>VAX_HESOTH</b>	<b>Besides the COVID-19 vaccine, how hesitant about other childhood vaccines would you consider yourself to be?</b>
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Frequency distribution (N = 13)

Response Option	Count
Not at all hesitant	10
Not that hesitant	0
Somewhat hesitant	3
Very hesitant	0

Participants who responded anything other than “not at all hesitant” were asked how they decided on their answer for this question. Two participants who indicated they were “somewhat hesitant” cited things they had heard in the news, on social media, and in their communities for their hesitancy.

*He has all his vaccines... except COVID... but you see things about kids getting autism from vaccines. I have a friend that's a nurse and she sees it all time. I'm a teacher and you can tell there are more autistic kids now than there used to be. I don't know if what you see on Facebook is real but it does give me concerns.*

The third participant who said they were “somewhat hesitant” about other childhood vaccines remembered how much pain their child was in after the flu shot and doesn't want them to suffer.

There was no apparent difficulty understanding or answering this question.

<b>VAX_CONCOVID</b>	<b>How confident are you that the COVID-19 vaccine benefits &lt;child's name&gt;?</b>
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Frequency distribution (N = 7)

Response Option	Count
Very confident	4
Somewhat confident	3
Not at all confident	0

This question was part of the embedded experiment and only seen by participants assigned to Group 1.

This item was not probed on during the cognitive interviews but there was no apparent misunderstanding or confusion among participants.

<b>VAX_CONOTH</b>	<b>Besides the COVID-19 vaccine, how confident are you that other childhood vaccines benefit &lt;child's name&gt;?</b>
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*Frequency distribution (N = 7)*

<b>Response Option</b>	<b>Count</b>
<b>Very confident</b>	4
<b>Somewhat confident</b>	3
<b>Not at all confident</b>	0

This question was part of the embedded experiment and only seen by participants in Group 1.

Participants who responded differently to this or the previous question than to VAX\_HESOTH were probed on how they decided on their answer for this question. Two participants mentioned that other children have had these vaccines and are fine, so the participant is either “very” or “somewhat” confident in their benefits. Both of these participants were “not at all hesitant” about other childhood vaccines (VAX\_HESOTH) but were “very hesitant” about the COVID-19 vaccine for children.

There was no apparent misunderstanding or confusion among participants answering this question.

<b>VAX_IMPCOVID</b>	<b>How important do you think the COVID-19 vaccine is for &lt;child's name&gt;'s health?</b>
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*Frequency distribution (N = 6)*

<b>Response Option</b>	<b>Count</b>
<b>Very important</b>	2
<b>Somewhat important</b>	3
<b>Not at all important</b>	2

This question was part of the embedded experiment and only seen by participants assigned to Group 2.

This item was not probed on during the cognitive interviews but there was no apparent misunderstanding or confusion among participants.

<b>VAX_IMPOTH</b>	<b>Besides the COVID-19 vaccine, how important do you think other childhood vaccines are for &lt;child's name&gt;'s health?</b>
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*Frequency distribution (N = 6)*

<b>Response Option</b>	<b>Count</b>
<b>Very important</b>	4
<b>Somewhat important</b>	2
<b>Not at all important</b>	0

This question was part of the embedded experiment and only seen by participants assigned to Group 2.

Participants who responded differently to this or the previous question than to VAX\_HESOTH were probed on how they decided on their answer for this question. Only two participants were asked the follow-up probe for this question. Both participants felt that other childhood vaccines were better established than the COVID-19 vaccine. Both were “not at all hesitant” about other childhood vaccines. One participant noted that they had heard about “negative outcomes” from the COVID-19 vaccine that are not a threat with other childhood vaccines.

<b>VAX_SAFECON</b>	<b>How confident are you that the COVID-19 vaccine is safe for &lt;child's name&gt;?</b>
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*Frequency distribution (N = 13)*

<b>Response Option</b>	<b>Count</b>
<b>Very confident</b>	4
<b>Somewhat confident</b>	6
<b>Not at all confident</b>	2
<b>Skipped</b>	1

This item was not probed on during the cognitive interviews but there was no apparent misunderstanding or confusion among participants.



<b>VAX_SAFEOTH</b>	<b>Besides the COVID-19 vaccine, how confident are you that other childhood vaccines are safe for &lt;child's name&gt;?</b>
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*Frequency distribution (N = 13)*

<b>Response Option</b>	<b>Count</b>
<b>Very confident</b>	8
<b>Somewhat confident</b>	2
<b>Not at all confident</b>	2
<b>Skipped</b>	1

This item was not probed on during the cognitive interviews but there was no apparent misunderstanding or confusion among participants.

<b>VAX_EXEMPT</b>	<b>Have you ever requested an exemption from vaccines required for daycare or school attendance for &lt;child's name&gt;, that is, have you ever requested permission for &lt;child's name&gt; to attend daycare or school without required vaccination?</b>
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*Frequency distribution (N = 13)*

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	1
<b>No</b>	12

Only the participant who reported requesting an exemption was probed on this question. When asked for details about this exemption request, the participant said they asked their doctor not to give their child the COVID-19 vaccine because they were unsure about the vaccine. It appears that the participant was referencing getting their child the COVID-19 vaccine in general, rather than asking for an exemption from daycare or school because they did want their child to be vaccinated.

<b>VAX_TOOMANY</b>	<b>Have you ever been concerned about &lt;child's name&gt; receiving too many vaccines at one time?</b>
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Frequency distribution (N = 13)

Response Option	Count
Yes	5
No	8

When asked how they came up with an answer for this question, participants who had been concerned about their child receiving too many vaccinations at one time focused on times they delayed or rescheduled vaccine appointments and how irritable and upset getting multiple vaccines made their children.

Participants that had no concerns about the number of vaccines given at one time cited how well established other childhood vaccines were and that they did not have concerns about vaccines in general.

<b>VAX_SIDEFF</b>	<b>Have you ever been concerned about &lt;child's name&gt; experiencing serious, long term side effects from getting vaccinated?</b>
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Frequency distribution (N = 13)

Response Option	Count
Yes	7
No	6

Participants who were concerned about their child experiencing serious, long term side effects cited things they had heard or seen on social media about vaccines causing illness or not working.

*You know every vaccination has its side effects. For the COVID one I was really worried because, like, you're hearing it all over the news and how it's affected people.*

*For being vaccinated, sometimes it's a risk that you're taking with your child because you want her to feel better. But sometimes, with the vaccine, it doesn't work on the child and I wouldn't want to put her through such a thing.*

Three participants mentioned the COVID vaccine separately from other childhood vaccines when talking about this question. One of these participants was unsure if this question was asking about the COVID vaccine, other childhood vaccines, or both.

<b>VAX_DECISION</b>	<b>For this next question, you may select more than one answer. Did you do any of the following because of your concerns about getting &lt;child's name&gt; vaccinated?</b>
<b>VAX_DECISIONa</b>	<b>Delayed their vaccinations</b>
<b>VAX_DECISIONb</b>	<b>Reduced number of vaccinations given in a single visit</b>
<b>VAX_DECISIONc</b>	<b>Declined some vaccinations</b>
<b>VAX_DECISIONd</b>	<b>Declined all vaccinations</b>
<b>VAX_DECISIONe</b>	<b>None of the above</b>

Frequency distribution (N = 8)

<b>Response Option</b>	<b>Count*</b>
<b>Delayed their vaccinations</b>	4
<b>Reduced number of vaccinations given in a single visit</b>	6
<b>Declined some vaccinations</b>	3
<b>Declined all vaccinations</b>	0
<b>None of the above</b>	0

\*Responses do not sum to 8. Participants could endorse more than one reason.

These questions were asked of participants who responded “yes” to VAX\_TOOMANY or VAX\_SIDEFF. One participant ended their interview at this point due to time.

Most participants delayed or reduced the number of vaccinations given in a single visit due to concerns about side effects and potential harm. One participant noted that their child has a medical condition that needs to be monitored when giving vaccines and this led to delaying some vaccinations.

Of the three participants who declined some vaccines, two declined the COVID-19 vaccine and one declined the flu vaccine for their children.

<b>VAX_KNOWEFF</b>	<b>Do you personally know anyone who has had a serious, long-term side effect from a vaccine?</b>
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Frequency distribution (N = 12)

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	2
<b>No</b>	10

When asked how they decided on their answer to this question, the two participants who said “yes” did not give specific examples of who they knew with serious, long-term

side effects from a vaccine. One participant thought of some older people they knew who had vaccine side effects but also said it was “probably from mercury or something in the vaccine” which “would no longer be a problem”. The other participant thought broadly of friends, family, and colleagues but did not give a specific example of who they knew that had this experience.

<b>VAX_WHOCOMM</b>	<b>For this next question, you may select more than one answer. Which of the following have communicated with you about getting vaccines for &lt;child’s name&gt;?</b>
<b>VAX_WHOCOMMa</b>	<b>Doctor or other health care providers</b>
<b>VAX_WHOCOMMb</b>	<b>School or daycare</b>
<b>VAX_WHOCOMMc</b>	<b>Some other source</b>
<b>VAX_WHOCOMMd</b>	<b>Nobody has communicated with me about vaccines for my child</b>

*Frequency distribution (N = 11)*

<b>Response Option</b>	<b>Count*</b>
<b>Doctor or other health care providers</b>	11
<b>School or daycare</b>	4
<b>Some other source</b>	2
<b>Nobody has communicated with me about vaccines for my child</b>	0

\*Responses do not sum to 11. Participants could endorse more than one source.

One participant ended their interview at this point due to time. When asked which doctor or other health care provider communicated with them about their child’s vaccines, 10 participants said this was a pediatrician or a primary care physician (PCP). The other two participants mentioned they talked about vaccines for their children with family friends who happen to be doctors.

When asked who at their child’s school or daycare communicated with them about vaccines for their child, participants did not cite who had this conversation but described the circumstances. Participants had a wide interpretation of what “communicated” meant in this question. Three participants said they were given a list and had a conversation with their daycare or school about what vaccines were needed to attend. One of these participants also noted that they had a conversation about vaccines required for a school sponsored sport. The remaining participant talked to other parents about their concern around the COVID-19 vaccine but not someone who worked for the daycare or school.

Two participants cited other sources of communication about vaccines for their children. One remembered pamphlets being sent home from church with her child and the other mentioned television commercials during the news that encourage people to get vaccinated.

<b>VAX_HOWCOMM</b>	<b>For this next question, you may select more than one answer. How have doctors or other health care providers communicated with you about getting vaccines for &lt;child's name&gt;?</b>
<b>VAX_HOWCOMMa</b>	<b>Face-to-face conversations</b>
<b>VAX_HOWCOMMb</b>	<b>Email or electronic messages, such as a patient portal</b>
<b>VAX_HOWCOMMb</b>	<b>Text messages</b>
<b>VAX_HOWCOMMd</b>	<b>Phone calls</b>
<b>VAX_HOWCOMMe</b>	<b>Information sheets</b>
<b>VAX_HOWCOMMf</b>	<b>Other</b>

*Frequency distribution (N = 11)*

<b>Response Option</b>	<b>Count*</b>
<b>Face-to-face conversations</b>	9
<b>Email or electronic messages, such as a patient portal</b>	4
<b>Text messages</b>	1
<b>Phone calls</b>	2
<b>Information sheets</b>	4
<b>Other</b>	1

\*Responses do not sum to 11. Participants could endorse more than one type of communication.

Participants were able to recall how doctors or other health care provides communicated with them about their children's vaccines. Most cited face-to-face conversations, particularly when at an appointment and planning for the next appointment.

One participant initially did not see the "patient portal" portion of the second response option and began to add this to the "other" category. They reread the question and were able to correctly answer. The participant who did select "other" remembered receiving printouts from the hospital about vaccines when her child was born. This participant was unsure if "communicated" meant a conversation or just being given those printouts. They did not include this in "information sheets."

The participant who remembered their child bringing home pamphlets from church about vaccines included this experience in "information sheets" even though these were not given to the child by a doctor or other health care professional.

<b>VAX_RECVACC</b>	<b>For this next question, you may select more than one answer. Have doctors or other health care providers recommended that &lt;child's name&gt; get any of the following vaccines?</b>
<b>VAX_RECVACC<sub>a</sub></b>	<b>Influenza or flu</b>
<b>VAX_RECVACC<sub>b</sub></b>	<b>COVID-19</b>
<b>VAX_RECVACC<sub>c</sub></b>	<b>[IF AGE &gt;=9] HPV, sometimes called Gardasil</b>
<b>VAX_RECVACC<sub>d</sub></b>	<b>None of the above</b>

Frequency distribution (N = 11, N=5 for [IF AGE >=9])

<b>Response Option</b>	<b>Count*</b>
<b>Influenza or flu</b>	7
<b>COVID-19</b>	7
<b>[IF AGE &gt;=9] HPV, sometimes called Gardasil</b>	2
<b>None of the above</b>	1

\*Responses do not sum to 11. Participants could endorse more than one response.

Most participants were able to recall this information and answer the question. One participant, however, did not remember if their child had had a flu vaccine. They thought it wasn't a vaccine but was a prescription. This participant selected only the COVID-19 vaccine because they remembered talking to the doctor and choosing not to get this vaccine for their child.

<b>VAX_TRUSTDOC</b>	<b>Is &lt;child's name&gt;'s doctor or health care provider your most trusted source of information about childhood vaccines?</b>
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Frequency distribution (N = 11)

<b>Response Option</b>	<b>Count</b>
<b>Yes</b>	9
<b>No</b>	2

Nine participants agreed that their child's doctor or health care provider was the most trusted source of information. These participants also cited several other sources of information they trusted:

- TV
- Their own Google searches
- Their own experience
- Friends
- Themselves

*I kind of trust myself more, it's not that I don't trust his doctor, but I know enough about doctors that they follow protocols, they'll tell you to get a vaccine regardless.*

The two participants who did not agree that their child's doctor or health care provider was the most trusted source of information instead turned to parents of other children, personal experience, and their own online research.

One participant expressed concern over how to find accurate information.

*I honestly don't know what to believe... I can't believe anything I read on the internet. You talk to people face to face and it's always a different story depending on who you're talking to.*

<b>VAX_INFOSCHA</b>	<b>Which of the following best describes how you would feel about receiving information on vaccines from &lt;child's name&gt;'s &lt;daycare/school&gt;, such as information about recommended vaccines and where you can get &lt;child's name&gt; vaccinated?</b>
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*Frequency distribution (N = 5)*

<b>Response Option</b>	<b>Count</b>
<b>I would appreciate receiving this information.</b>	3
<b>I would not appreciate receiving this information.</b>	1
<b>Not sure</b>	1

This question was asked of participants who did not endorse "school or daycare" in VAX\_WHOCOMMb. This item was not probed on during the cognitive interviews. There was no apparent misunderstanding or confusion among participants.

<b>VAX_INFOSCHB</b>	<b>Which of the following best describes how you felt about the information on vaccines you received from &lt;child's name&gt;'s &lt;daycare/school&gt;?</b>
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Frequency distribution (N = 4)

Response Option	Count
I appreciated receiving this information.	3
I did not appreciate receiving this information.	0
Not sure	0
Skipped	1

This question was asked of participants who endorsed “school or daycare” in VAX\_WHOCOMMb. All participants mentioned that the information they received was not in-depth or came in a casual conversation with other parents or daycare staff. One participant skipped answering this question because they were only asked if their child had been vaccinated, which they did not consider “real information.”

Though they appreciated the information, none of the participants found it useful at the time for making decisions about vaccines. One participant noted the information they got from other parents was helpful later.

<b>VAX_DIFFICULT</b>	<b>How difficult is it to get &lt;child's name&gt; vaccinated?</b>
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Frequency distribution (N = 11)

Response Option	Count
Not at all difficult	9
Somewhat difficult	2
Very difficult	0
I have not tried to get <child's name> vaccinated	0

This item was not probed on during the cognitive interviews but there was no apparent misunderstanding or confusion among participants.



<b>VAX_DISP</b>	<b>How much do you agree or disagree with the following statements?</b>
<b>VAX_TRANSPO</b>	<b>Getting &lt;child's name&gt; vaccinated is difficult because of a lack of reliable transportation.</b>
<b>VAX_COST</b>	<b>Getting &lt;child's name&gt; vaccinated is difficult because of the cost.</b>
<b>VAX_TIME</b>	<b>It is hard to find the time to take &lt;child's name&gt; to get vaccinated.</b>

Frequency distribution (N = 2)

<b>Response Option</b>	<b>Count</b>
<b>VAX_TRANSPO</b>	
Strongly agree	0
Somewhat agree	0
Somewhat disagree	0
Strongly disagree	2
<b>VAX_COST</b>	
Strongly agree	0
Somewhat agree	0
Somewhat disagree	0
Strongly disagree	2
<b>VAX_TIME</b>	
Strongly agree	0
Somewhat agree	0
Somewhat disagree	1
Strongly disagree	1

The two participants who received these questions defined reliable transportation as “having the means to travel” and having a personal car to use when Ubers aren’t available. There was no apparent misunderstanding or confusion among participants when answering these questions.

<b>VAX_SOCCOVID</b>	<b>Are discussions you have seen on social media about the COVID-19 vaccine for children...</b>
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Frequency distribution (N = 11)

Response Option	Count
Mostly positive	0
Mostly negative	1
A mix, that is, both positive and negative	6
Mostly neutral	0
I have not seen discussions on social media about the COVID-19 vaccine for children.	4

When answering this question participants cited:

- Facebook
- Youtube
- Instagram
- Twitter/X
- TikTok
- Whatsapp

One participant noted they would have preferred a “not applicable” option as they are not on social media.

This question seemed to be understood, and participants included a wide range of social media platforms when responding.

<b>VAX_SOCOTH</b>	<b>Besides the COVID-19 vaccine, are discussions you have seen on social media about other childhood vaccines...?</b>
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Frequency distribution (N = 11)

Response Option	Count
Mostly positive	4
Mostly negative	0
A mix, that is, both positive and negative	3
Mostly neutral	1
I have no see discussions on social media about other childhood vaccinations	3

Participants cited the same social media platforms as they included in the previous question.

Again, one participant noted they would have preferred a “not applicable” options as they are not on social media.

This question seemed to be understood, and participants included a wide range of social media platforms when responding, which were consistent with the previous question.

<b>VAX_NEWSCOV</b>	<b>Are discussions you have seen on television news about the COVID-19 vaccine for children...?</b>
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*Frequency distribution (N = 11)*

<b>Response Option</b>	<b>Count</b>
<b>Mostly positive</b>	3
<b>Mostly negative</b>	0
<b>A mix, that is, both positive and negative</b>	3
<b>Mostly neutral</b>	0
<b>I have no see discussions on television news about the COVID-19 vaccine for children.</b>	5

This item was not probed on during the cognitive interviews, but there was no apparent misunderstanding or confusion among participants.

<b>VAX_NEWSOTH</b>	<b>Besides the COVID-19 vaccine, are discussions you have seen on television news about other childhood vaccines...?</b>
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*Frequency distribution (N = 11)*

<b>Response Option</b>	<b>Count</b>
<b>Mostly positive</b>	4
<b>Mostly negative</b>	0
<b>A mix, that is, both positive and negative</b>	2
<b>Mostly neutral</b>	1
<b>I have no see discussions on television news about other childhood vaccines.</b>	4

This item was not probed on during the cognitive interviews, but there was no apparent misunderstanding or confusion among participants.

<b>VAX_CONVCOV</b>	<b>Are conversations you have with friends or family about the COVID-19 vaccine for...?</b>
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Frequency distribution (N = 10)

Response Option	Count
Mostly positive	2
Mostly negative	3
A mix, that is, both positive and negative	3
Mostly neutral	1
I do not have conversations with friends or family about the COVID-19 vaccine for children	1

One participant ended their interview at this point due to time.

When answering this question, participants considered conversations they've had with friends who are parents, friends who are not parents, family, and coworkers. One participant, whose child has autism and is non-verbal said:

*You can't have a child with autism and not have people talking to you about vaccines. I have to hear about vaccines a lot from randos.*

Most participants were thinking about in-person conversations, and some included phone calls and text messages. No one included social media when responding to this question.

<b>VAX_CONVOTH</b>	<b>Besides the COVID-19 vaccine, are conversations you have with friends or family about other childhood vaccines...?</b>
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Frequency distribution (N = 10)

Response Option	Count
Mostly positive	4
Mostly negative	0
A mix, that is, both positive and negative	3
Mostly neutral	1
I do not have conversations with friends or family about other childhood vaccinations	2

This item was not probed on during the cognitive interviews, but there was no apparent misunderstanding or confusion among participants.

<b>VAX_MMRDISP</b>	<b>How much do you agree or disagree with the following statements?</b>
<b>VAX_MMRUS</b>	<b>Measles poses a health risk in the United States.</b>
<b>VAX_MMRLOCAL</b>	<b>Measles poses a health risk in my city or town.</b>

Frequency distribution (N = 9)

<b>Response Option</b>	<b>Count</b>
<b>VAX_MMRUS</b>	
Strongly agree	2
Somewhat agree	2
Somewhat disagree	5
Strongly disagree	0
<b>VAX_MMRLOCAL</b>	
Strongly agree	2
Somewhat agree	1
Somewhat disagree	3
Strongly disagree	3

One participant ended their interview at this point due to time.

Most participants that chose “somewhat” or “strongly disagree” to these two questions explained in probing that they were not aware of large measles outbreaks in the United States or in their communities. One participant noted they do not know anyone who has had measles.

One person who “somewhat agreed” to both questions cited personal experience.

For me, [CHILD’S NAME] hasn’t gotten measles yet, but my friend’s children did.

One participant was unsure if these questions were about children only or children and adults. The population being asked in this question would impact their answer.

*Since they have not mentioned children I would think it’s just overall... So I’ll say somewhat agree. [Interviewer: would your answer be different if it did say for children specifically?] Um, yeah... I would go with strongly agree.*

<b>VAX_MMROUTB</b>	<b>In the past 6 months, have you heard or seen anything about recent measles outbreaks in the United States?</b>
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Frequency distribution (N = 9)

Response Option	Count
Yes	1
No	8

The participant who responded “yes” to this question clarified further in probing.

*I wouldn't exactly say outbreak. I've heard stories on the news here and there, but it's not like a full-blown outbreak... I guess I will go with yeah, because I have heard of cases, just not full-blown panic mode.*

They stated that an outbreak would be more than 10 people. They have not heard of that many cases but have heard of two or three people having measles.

<b>VAX_MMREDU</b>	<b>Unvaccinated children who are exposed to measles are usually required to stay home from school for 21 days. How concerned are you about this causing a disruption to your child's education?</b>
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Frequency distribution (N = 6)

Response Option	Count
Very concerned	1
Somewhat concerned	0
Not at all concerned	5

This question was asked of participants whose children were 5 years old or older.

The participants who were “not at all concerned” said their children are vaccinated against measles so this does not impact them. The one participant who was “very concerned” focused on the logistical and financial aspects of having a child home and potentially doing virtual schooling. They mentioned childcare costs, technology issues associated with virtual schooling, and how teachers would provide materials.

## Knowledge Check

The two questions in this section assess the participant's confidence in their answers about the sampled child.

<b>KNW_CONFIDNT</b>	<b>Thinking about the questions you have answered about &lt;child's name&gt;, how confident are you in your responses? Would you say you are...</b>
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*Frequency distribution (N = 9)*

Response Option	Count
Very confident	8
Somewhat confident	1
Not very confident	0
Not at all confident	0

Because all participants were “very” or “somewhat” confident, the follow-up probe asking how the participants decided on their answers was not used for this question.

While answering this question, participants thought of the child disability (ACS) questions, questions about vaccinations, and questions about the community and neighborhood. Recalling the disability questions was the most frequent response to this probe.

There was no apparent misunderstanding or confusion among participants.

<b>KNW_HELP</b>	<b>Did another person help you answer questions about &lt;child's name&gt;?</b>
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*Frequency distribution (N = 9)*

Response Option	Count
Yes	0
No	9

Only one participant said, when probed, that they would have asked someone else for help. This was the participant who mentioned early in the interview that they could not remember if their child had had a flu vaccine and would like to check with their spouse. If the spouse was available, and they were doing this survey on their own, they would have asked their spouse.

There was no apparent misunderstanding or confusion among participants when answering this question.

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