

Children's Questions, Worries, and Information Needs Over the Course of the COVID-19 Pandemic: Research Summary

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If you have questions about this study, please contact Amy Grack Nelson at agnelson@smm.org.

Research Overview

This research summary shares some high level findings related to the following research questions.

1. What kinds of **worries and questions** do Brains On! listeners have about the coronavirus and related aspects of the pandemic? How do children's worries and questions change over the course of the pandemic?
2. What **resources** do caregivers need to answer children's questions and help them understand science topics related to the pandemic?

To gain deeper insights into the findings presented here, please read our full reports which are referenced on the last page of this document.

Research Overview

The sample for this study was 5 - 12 year old listeners of the children's science podcast Brains On!, produced by American Public Media. Children and their families were looking to Brains On! for coronavirus information, with the March 10, 2020 coronavirus episode the most downloaded of Brains On!'s over 190 episodes (136,402 downloads in the first 15 days).



We conducted two online surveys with Brains On! listener families - the first in June 2020 and the second in January 2021.

Brains On! episode topics are based on questions children submit to the show. We analyzed coronavirus-related questions submitted to Brains On! between February – June 2020. A year into the pandemic there were fewer COVID-related questions submitted to Brains On!, so we asked caregivers to report any questions that their children had on the January 2021 survey.



A Limitation of Our Study

Even though this study provides valuable insights about children's experiences during the COVID-19 pandemic, both survey samples tended to be reflective of the experiences of white identifying, high income, and highly educated families. This means the experiences and voices from populations of children and families that have been most affected by the COVID-19 pandemic in terms of economic and racial disparities were not adequately represented in our study.

We acknowledge that this is a major limitation of our research and we hope other researchers will build on these findings and can help to fill in the gaps of our sample and knowledge.

Context for June 2020 Survey

Early in the pandemic.

People are beginning to resume some activities after stay-at-home orders are lifted.

Vaccines are in development.

Children finished a school year that abruptly transitioned to distance learning.

There is uncertainty about school plans for the fall.

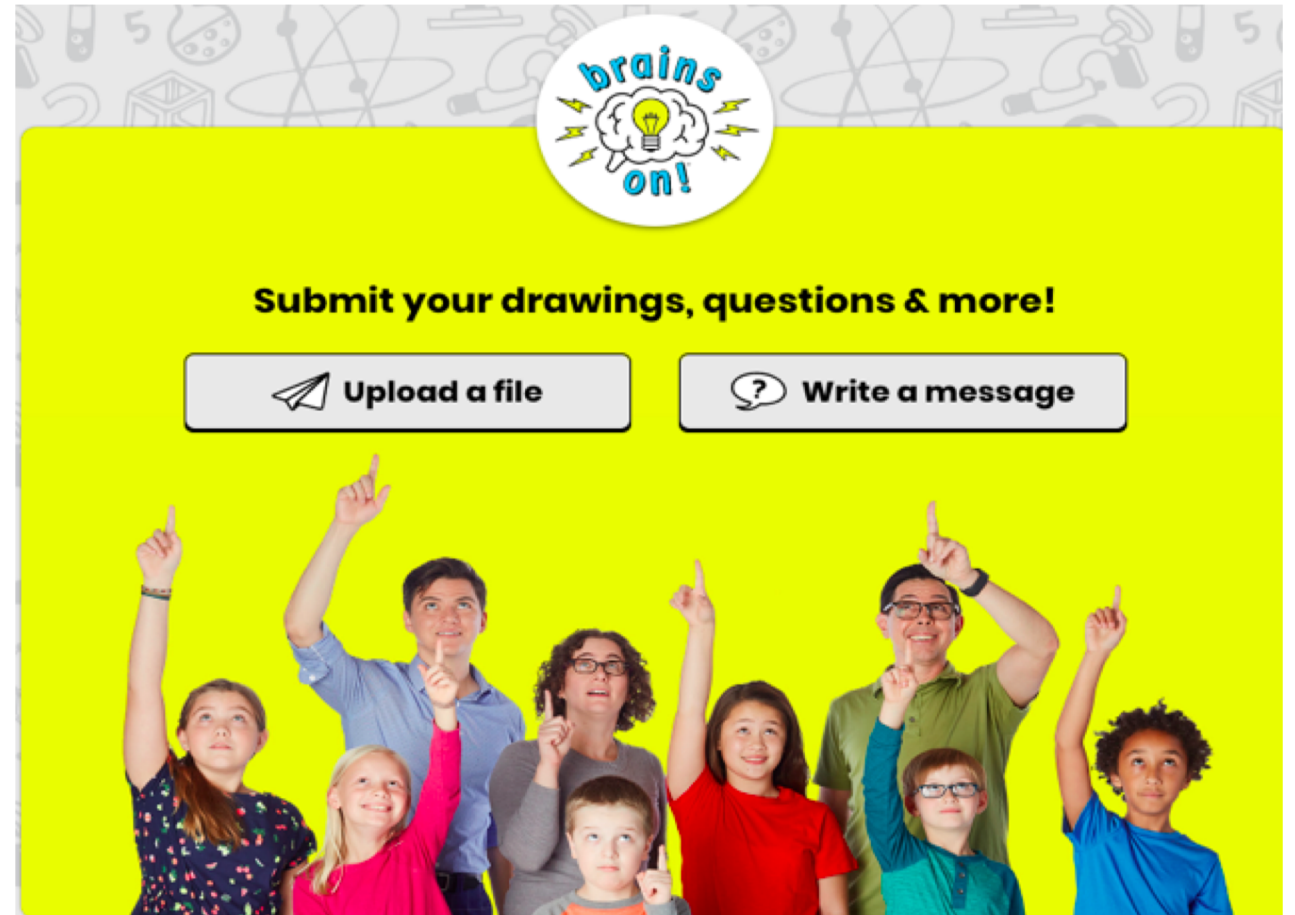
June 2020 Methods and Sample

Online Survey: Who Responded?

- 401 caregivers of kids ages 5 to 12 who had listened to a Brains On! coronavirus episode
- Children in the sample tended to be 5-10 years old, male, white-identifying. They came from households that tended to be highly educated, high income, and have an adult working in a STEM field.

Question Submission

- We analyzed 177 coronavirus-related questions submitted to Brains On! between February 1 - June 2, 2020.



Topics of Children's Coronavirus-Related Worries

Survey question: "What has your child been worrying about in relation to the coronavirus?"

Most frequently mentioned

- Worries about others and/or themselves getting sick
- Worries related to not being able to see others

Sometimes mentioned

- Worries related to an uncertain future
- Worries related to school
- Worries about people dying
- Worries about changes in activities, plans, and routines

Rarely mentioned

- Worries related to the ways people can contract the virus
- Worries related to preventative measures
- Worries about passing the virus on to others
- Worries about people not following guidelines
- Other worries

Topics of Questions Children Submitted to Brains On!

Most frequently mentioned

- Preventative measures

Sometimes mentioned

- Uncertainty about the length of the pandemic
- Coronavirus origins
- Transmission
- Treatment
- Comparison to other illnesses and pandemics

Rarely mentioned

- Coronavirus features and name
- School
- Animals
- Coronavirus affecting people differently
- Infection
- General virus questions
- Geography of the coronavirus
- Getting rid of the coronavirus
- Symptoms
- Immunity
- Other question topics

Examples of Kids' Questions: February - June 2020

Preventative Measures

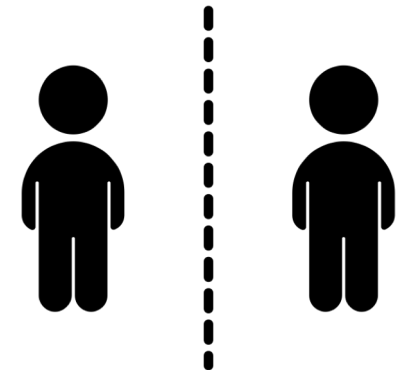
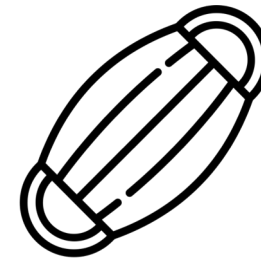
Why do we need to stay at home?

How do masks prevent the coronavirus from spreading?

Why does soap help wash away the coronavirus?

Is hand sanitizer as good as washing hands?

Why does social distancing help?



Examples of Kids' Questions: February - June 2020

Uncertainty around the length of the pandemic:

When will life go back to normal?

Coronavirus origins: Where did COVID-19 come from?

Transmission: How does the coronavirus spread?

Treatment: How long will it take to make a working shot like a flu shot?

Comparisons to other illnesses/pandemics: Which is more dangerous coronavirus or flu?

What other major pandemics have there been in recent times?



Families Need More Child-Focused Resources

65% of caregivers said they used **adult-focused** or **general public resources** with their child.



We are doing a lot of 'translating' into accessible terms.

Top five pandemic-related topics caregivers wanted help talking to their child about

- School
- Preventative measures
- Safely re-entering society during the pandemic
- Kids' emotions
- Uncertainty around the length of the pandemic

Cross-Cutting Themes from June 2020 Data

Dealing with uncertainty

Children were dealing with how to handle uncertainty (how long?) in relation to changes in school, changes in socializing with friends and family, preventative measures, and vaccines.

Understanding the nature of science

Caregivers wanted help better understanding and explaining to their children why scientific guidance and knowledge changes, which children saw happening frequently during the pandemic.

Changes in children's lives due to preventative measures

Changes with school, relationships with friends, and activities due to preventative measures had a large impact on children's lives.

Children's mental and emotional health

Caregivers were looking for way to support their children's mental and emotional health as many children were dealing with a range of emotions including worry, fear, and loneliness.

Context for January 2021 Survey

One year into the pandemic.

Death rate from COVID-19 peaks in the United States.

Many people feel pandemic fatigue.

There is variability in school experiences (in-person, virtual, hybrid).

Vaccines for adults are becoming available, but no vaccines are approved yet for children.

There is uncertainty around what vaccines mean for a return to “normal” life.

January 2021 Methods and Sample

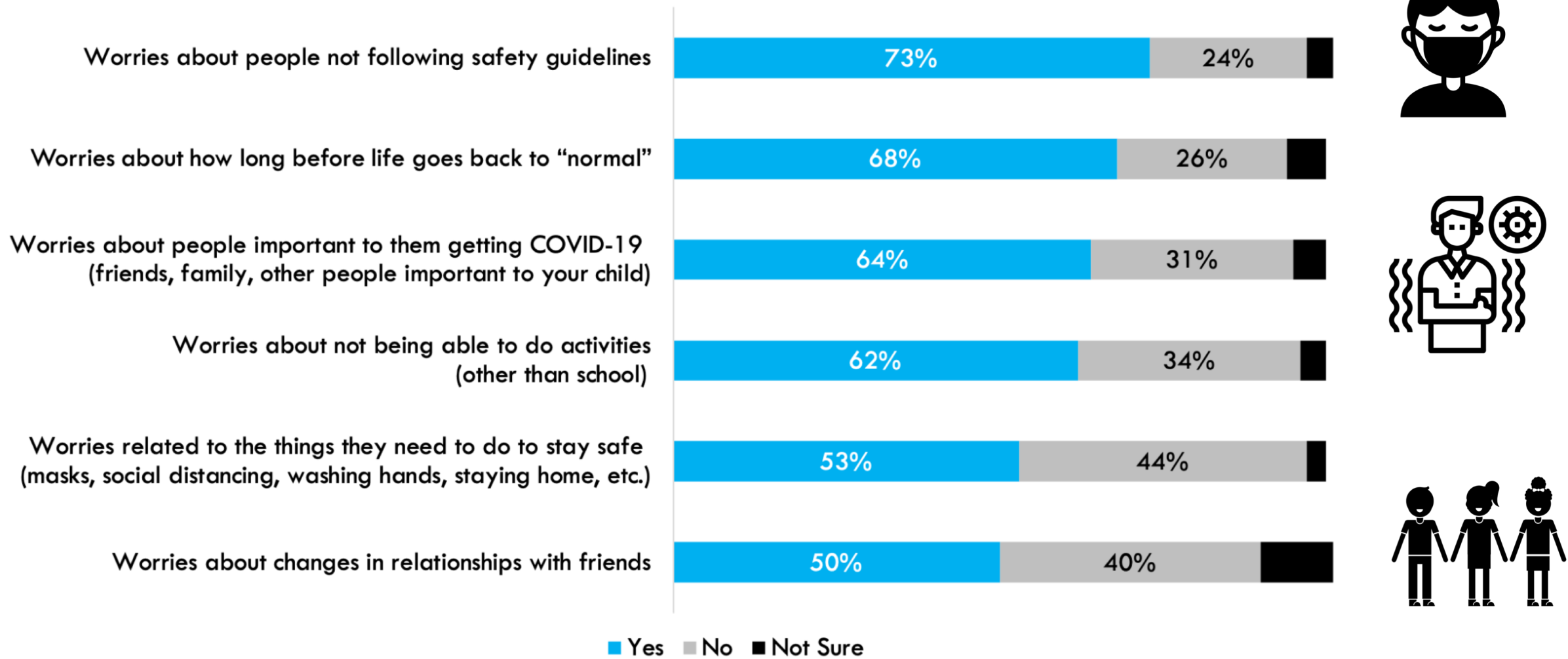
Online Survey

- Survey questions asked about the period from December 2020 through mid to late January 2021.
- We gathered kids' pandemic questions through the survey, instead of through Brains On! submissions since coronavirus-related question submissions had decreased later in the pandemic.
- On the survey, we asked about children's worries based on a predetermined list instead of an open-ended survey question (like we did on the June 2020 survey). The list of worries was informed by the June 2020 data, expert guidance, and think-aloud interviews with families. This question format allowed us to better understand frequency of worries and differences by demographic variables.

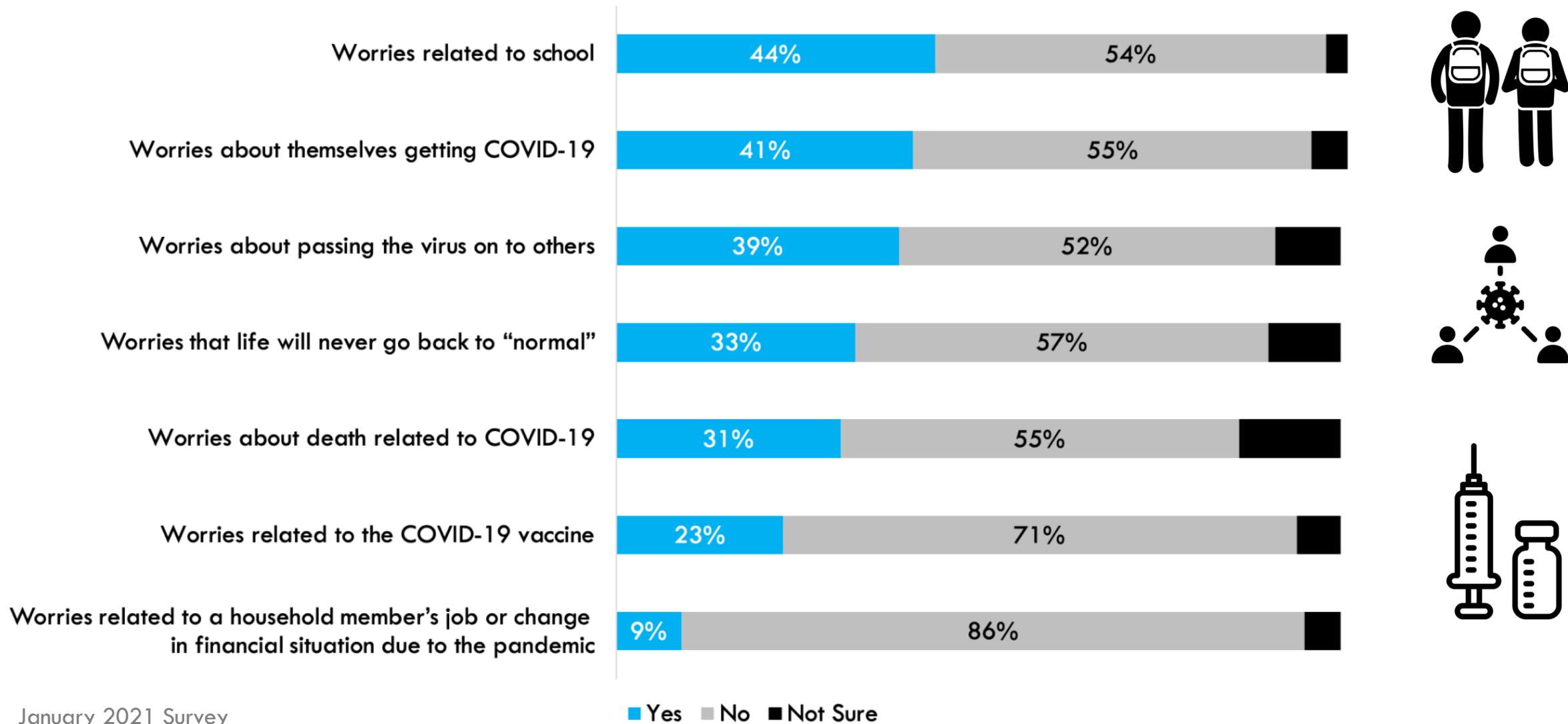
Who Responded?

- 537 caregivers of children ages 5 to 12 who'd listened to Brains On!
- Similar demographics to June 2020 survey. Children in the sample tended to be 6-10 years old, male, white-identifying and from households that tended to be highly educated, high income, and have an adult working in a STEM field.

Children's Worries: December 2020 - January 2021



Children's Worries: December 2020 - January 2021



Demographic Differences in Children's Worries

Female-identifying children were more likely to be worried about **changes in relationships with friends** than male-identifying children.

Female-identifying children were more likely to be worried about **life never going back to “normal”** than male-identifying children.

BIPOC children were more likely to have worries related to **school** than white children.

Of children between the ages 5 to 12, older children were more likely to be worried about **death related to COVID-19** than younger children.

Children's Vaccine-Related Worries

We asked caregivers specifically about children's vaccine-related worries. At the time of the survey, vaccines were just starting to be rolled out to adults and there were no vaccines approved for children.

Most frequently mentioned

- Worries about pain or fear of shots
- Worries about the uncertainty of the timing or scheduling of vaccinations

Sometimes mentioned

- Worries about whether the vaccine is safe and/or if it will work
- Worries about the distribution of and access to the vaccine

Rarely mentioned

- Worries related to how the vaccines work
- Worries related to the development and experimental aspects of the vaccine
- Worries related to children's sense of agency or control in the decision to get a vaccine
- Worries about others avoiding the vaccine

Topics of Children's Questions

Survey question: "What question(s) does your child currently have about the coronavirus or the COVID-19 pandemic?"

Most frequently mentioned	Sometimes mentioned	Rarely mentioned
<ul style="list-style-type: none">• Uncertainty about the length of the pandemic• Vaccine	<ul style="list-style-type: none">• Preventative measures	<ul style="list-style-type: none">• School• Coronavirus origins• People not following guidelines or taking the science seriously• Infection• Mutation and variants• Coronavirus affecting people differently• Comparison to other illnesses and pandemics• Coronavirus features and name• Government-related• Transmission• Animals• Future pandemics• Re-infection• Other question topics

Examples of Kids' Questions

Uncertainty around the length of the pandemic

When will things go back to normal?



When can we do xyz activity?

When can we hang out with friends in a normal way?

When will kids like me take the vaccine?

When will it be safe to see people without masks?

Examples of Kids' Questions

Vaccine-related questions



What can and can't we do after we get vaccinated?

What is happening with the vaccine for children?

How does the vaccine work?

How are vaccines made?

How do we know that the vaccine will work?

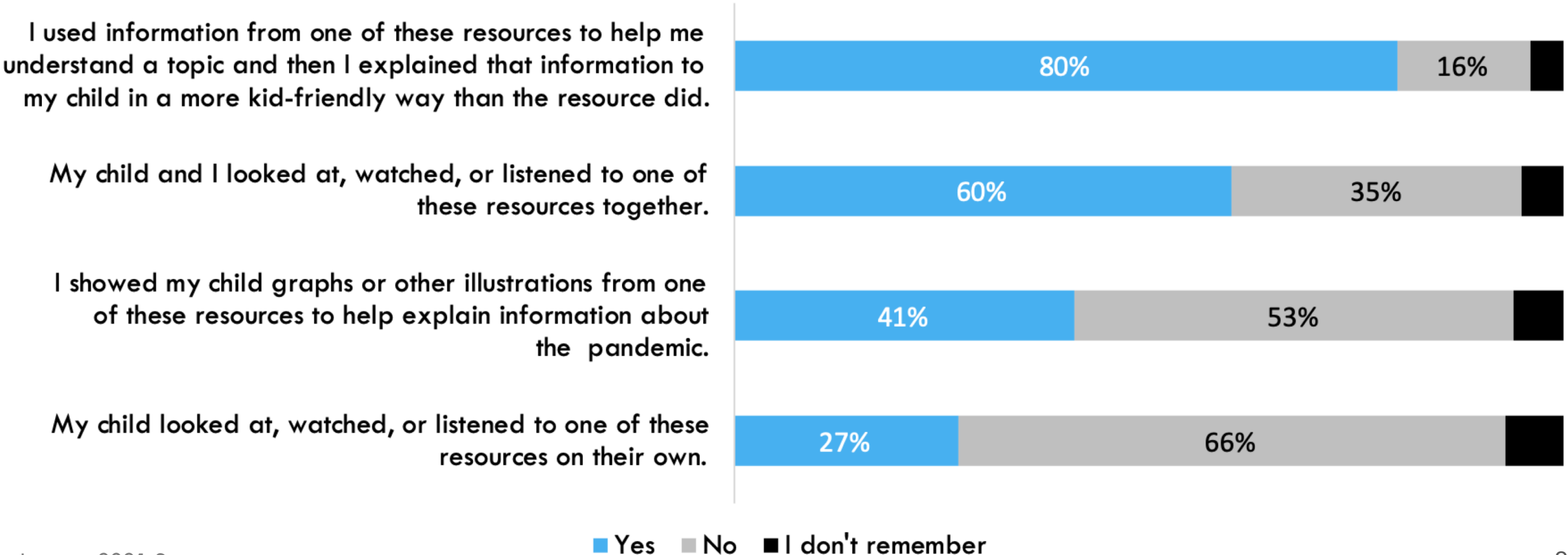


Will the vaccine still work if the virus is changing?

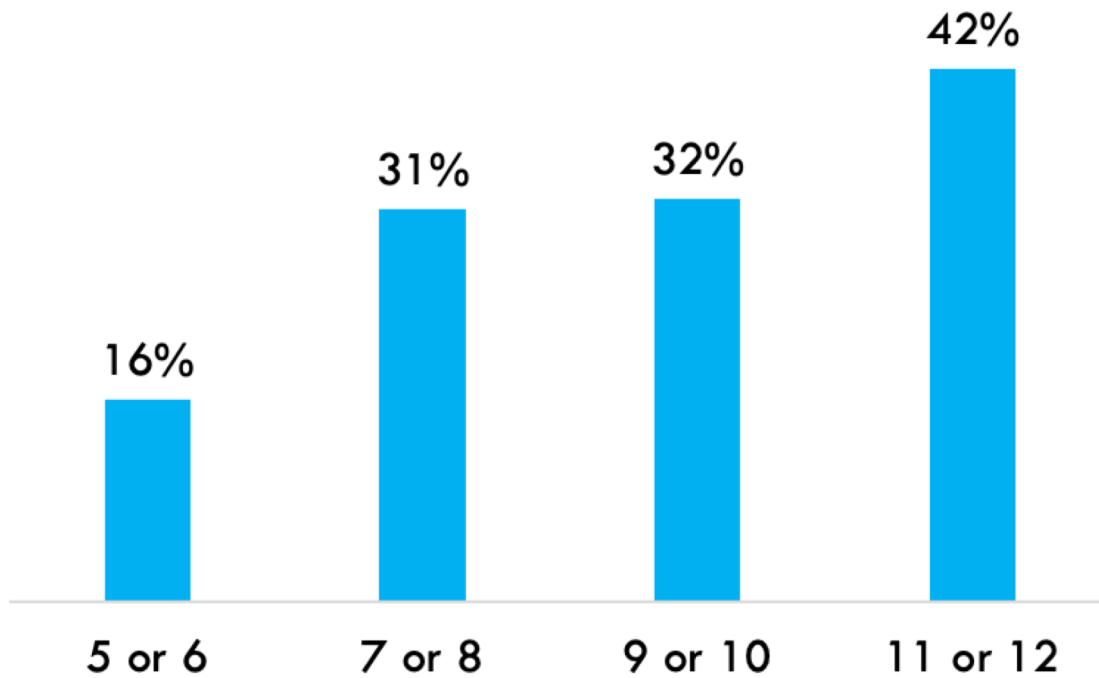
Why aren't they giving out the vaccines faster?

Caregiver Use of Adult-Focused and General Public Resources

We learned from our June 2020 survey that many caregivers turn to resources that are meant for adults or the general public to help them talk about pandemic-related topics with their child. In January 2021, we asked caregivers specifically how they were using these resources with their child.



Caregiver Resource Use and Needs



Older children are more likely to engage with a **general public or adult-focused resource** on their own than younger children.

Caregivers most frequently requested **kid-focused resources** covering...



Children's mental health struggles and emotional wellbeing during the pandemic



Vaccine-related topics

Cross-Cutting Themes From January 2021 Data

Uncertainty continues to worry children

Children had worries and questions about the uncertainty in relation to vaccines, variants, school, socializing, activities, and preventative measures. Most often around how long before their life would return to “normal.”

Social impacts are just as important to address with children as the science

The impact of preventative measures on social routines and activities (i.e. school, friendships, favorite activities, and seeing extended family) are just as important to discuss with children as pandemic-related science topics.

Attending to children’s mental health and emotional wellbeing

Children’s emotional wellbeing was top of mind for caregivers. Almost all children in the study were feeling worried. Additional emotions included frustration, sadness, and loneliness.

Need for greater understanding of vaccines

Children had many questions and worries around vaccines, which they saw as key to life returning to “normal.”

Making sense of inconsistencies in people’s preventative behaviors

Children worried and wondered about inconsistencies in people’s preventative behaviors and why some people didn’t seem to be taking care of others in the community.

Comparing findings from two timepoints of the COVID-19 pandemic

Early in the pandemic:
June 2020 survey

A year into the pandemic:
January 2021 survey

Similarities in Children's Worries

Many of the worries children had stayed the same over the course of the pandemic (comparing January 2021 and June 2020 worries).

Children remained worried about the many changes in their life due to following preventative measures (school, socializing with others, doing activities) and the continued uncertainty of when their life would be back to “normal.”

Children were still worried about prevention and transmission, people getting sick (themselves and others), and death from COVID-19.

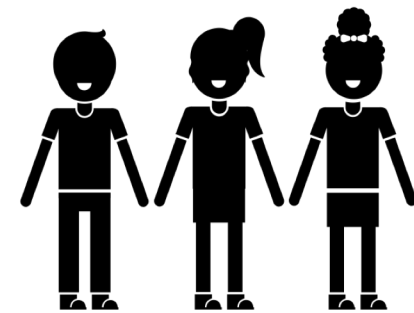


Differences in Children's Worries

Worries about people not following safety guidelines were more prevalent in January 2021 than early in the pandemic. The differences in context may help to account for this as in June 2020 many families were beginning to emerge from staying at home and mask mandates were just starting. In January 2021, case and death counts were high, mask mandates were present in many places, and pandemic fatigue had set in.

Vaccines were still in development in June 2020 so there were few worries expressed about vaccines at that time. In January 2021, there were some vaccines available for adults, but not yet for children. **Vaccine worries** were present, but only for around a quarter of the children in the study.

Worries about relationships with friends was something that stood out in January 2021 compared to June 2020. A year into the pandemic, socializing with friends and school experiences continued to look different and children were worried about the impact of this on their friendships.



Differences in Children's Questions

While questions about preventative measures, uncertainty around the length of the pandemic, and treatment/vaccines were frequent at both time points, **questions about preventative measures** were more frequent between February - June 2020 while **questions around the uncertainty of the length of the pandemic** and **treatments/vaccines** were more frequent in January 2021.

There were some differences in questions specific to the coronavirus itself. Between February - June 2020, there were more questions about the **origin of the coronavirus** and **how it is transmitted** than in January 2021. In January 2021, there were more questions about **coronavirus variants and mutation**, with only a few children asking about coronavirus mutations between February - June 2020.



Differences in Children's Questions

A few question topics were present in the February - June 2020 data that didn't come up in January 2021. These included questions about **what can get rid of the coronavirus** and questions about the **symptoms of COVID-19**.

A number of question topics were present in the January 2021 data that did not come up early in the pandemic. These included questions about **people who weren't following guidelines, didn't trust scientists, or weren't taking the pandemic seriously**; questions about **the government's (federal, state, local) response to the pandemic**; and questions about the **potential for future pandemics**.

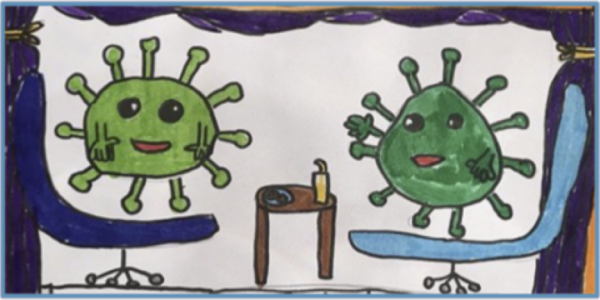


Read our full reports for more details about our methodology and study findings.

Children's Questions, Worries, and Information Needs During the COVID-19 Pandemic

A study based on listeners of the children's science podcast


brains on!




Drawing submitted by Brains On! child listener

FULL REPORT

Amy Grack Nelson, Marjorie Bequette, Zdanna King, Choua Her, Scott Van Cleave, Evelyn Christian Ronning, Juan Dominguez



September 2020




Full Report: http://bit.ly/SMM_Covid1_FullReport

Executive Summary: http://bit.ly/SMM_Covid1_Summary

Children's Questions, Worries, and Information Needs A Year Into the COVID-19 Pandemic

A study based on listeners of the children's science podcast


brains on!




Vaccine drawing submitted by a Brains On! child listener

FULL REPORT

Amy Grack Nelson, Evelyn Christian Ronning, Scott Van Cleave



March 2021



Full Report: http://bit.ly/SMM_Covid2021_FullReport

Executive Summary: http://bit.ly/SMM_Covid2021_Summary