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THE COVID STATES PROJECT: A 50-STATE COVID-19 SURVEY

REPORT #68: HEIGHTENED PARENTAL CONCERNS ABOUT COVID-19 VACCINATIONS FOR CHILDREN

USA, October 2021

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Report of October 18, 2021, v.1

The COVID States Project

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

A joint project of:

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

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Northeastern University
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COVER MEMO

Summary Memo — October 18, 2021

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From April 2020 through September 2021, we conducted multiple waves of a large, 50-state survey, some results of which are presented here. You can find previous reports online at covidstates.org.

Note on methods:

Between August 26 and September 27, 2021, we surveyed 21,079 individuals across all 50 states plus the District of Columbia. The survey was conducted by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity, age, and gender (for methodological details on the other waves, see covidstates.org). In addition to balancing on these dimensions, we reweighted our data using demographic characteristics to match the U.S. population with respect to race/ethnicity, age, gender, education, and living in urban, suburban, or rural areas. This was the latest in a series of surveys we have been conducting since April 2020, examining attitudes and behaviors regarding COVID-19 in the United States.

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Heightened parental concerns about COVID-19 vaccinations for children

In early October 2021, [Pfizer and BioNTech asked](#) the US Food and Drug Administration (FDA) to authorize their COVID-19 vaccine for children between the ages of 5 and 11. The success of vaccinating children is, however, still contingent upon whether parents feel their children should get the COVID-19 vaccine.

Before the pandemic, vaccine hesitancy among parents was prevalent in certain pockets of the US. Parental [vaccine hesitancy](#) led to decreased inoculation rates among children for immunizations such as the MMR vaccine. This subsequently led to [outbreaks](#) of previously-eradicated diseases - like the measles - among children in [states](#) such as Washington and New York in 2018, and Minnesota in 2017.

With the COVID-19 vaccine, parental vaccine hesitancy could similarly lead to higher levels of COVID-19 cases among minors, while also transmitting the disease to other populations. Investigating parental vaccine concerns is important in understanding and addressing parental vaccine hesitancy surrounding COVID-19. For this reason, [in June 2021](#) we asked parents across the country about various concerns regarding childhood COVID-19 vaccination. We isolated their top five concerns: how new the vaccine is, whether the vaccine has been tested enough, whether the vaccine actually works, immediate side effects of the vaccine, and long-term side effects of the vaccine. We asked parents about these concerns again in September 2021 to detect shifts over time.

Across the board, we find that the proportion of parents who felt these five items were major concerns increased substantially. We also find that several groups tend to express more concern over vaccinating their children against COVID-19, including younger mothers, parents of younger children, parents of children who have not yet been vaccinated, Republicans and Independents, Hispanic and Black parents, the non-college educated, and rural residents.

We also asked parents about the likelihood of vaccinating their kids against COVID-19. We found significant proportions of parental vaccine hesitancy. For instance, 34% of parents with kids under 12 said it was unlikely that they would vaccinate their children against COVID-19. Further, the likelihood of parents vaccinating their children against COVID-19 was highly related to parental vaccination status and mode of student instruction.

Parents having concerns about vaccinating their children does not automatically result in vaccine hesitancy, and it is also possible that the vaccine hesitant adopt heightened concerns because they are vaccine hesitant. That said, the concerns and motivations driving COVID-19 vaccine hesitancy among parents should be examined more closely.

KEY TAKEAWAYS

- All investigated parental concerns about vaccinating children against COVID-19 have increased significantly from June 2021 to September 2021 across all demographic groups. A few of these jumps were as high as 15 percentage points or more for certain concerns and for demographic groups.
- Certain groups of parents are more likely to express major concerns about the COVID-19 vaccine for their kids, including younger mothers, parents of younger children, parents of children who have not yet been vaccinated, Republicans and Independents, Hispanic and Black parents, the non-college educated, and rural residents.
- Long-term effects of the COVID-19 vaccine, followed by whether the COVID-19 vaccine has been tested enough, were often the top concerns among parents.
- Both the likelihood of vaccinating children under 12 and vaccination status in children ages 12 to 18 are strongly related to parent vaccination status, as well as student mode of school instruction.

Part I: Parental concerns about vaccinating children against COVID-19, June 2021 versus September 2021

First, we take a look at the concerns surrounding childhood COVID-19 vaccination over time and by demographic groups. We find that, regardless of demographic group, parents express greater concern about the COVID-19 in September 2021 compared to June 2021. Many times, the increase in something being a 'major concern' was over ten percentage points in the span of three months.

Figure 1 presents the percentage of parents in June 2021 and September 2021 who said the concern listed was a 'major concern.' In June 2021, 46% of parents were worried about how new the vaccine is; in September 2021, this jumped to 54% of parents. Concerns over whether the vaccine has been tested enough also increased: 51% of parents in June said this was a major concern, while 63% of parents in September said this.

Concerns of Parents About COVID-19 Vaccine, June 2021 Versus September 2021

Percent of parents who said it was a "major concern" when asked the following question:

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

National Sample of Parents, September 2021: (N = 4694, Time period: 08/26/2021-09/27/2021), June 2021: (N = 4975, Time period: 06/09/2021-07/06/2021)

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

Figure 1: Concerns of Parents About COVID-19 Vaccine, June 2021 Versus September 2021

The percent of parents expressing a major concern over whether the COVID-19 vaccine actually works jumped from 44% in June to 58% in September. Similarly, the percent of parents who thought immediate side effects of the vaccine were a major concern increased from 44% of parents in June to 54% of parents in September.

Finally, the biggest increase occurred over the vaccine's long-term health effects. In June 2021, 50% of parents thought this was a major concern; in September 2021, nearly two-thirds - 65% - said this was a major concern.

Next, we look at these changes by subgroups of parents:

VACCINATION STATUS. Figure 2 shows the five COVID-19 vaccine concerns regarding children by whether the parent has been vaccinated (at least one dose) or not. Although unvaccinated parents were more likely to express major concerns generally compared to vaccinated parents, there were similar-sized jumps in the percent expressing major concern over time for both groups.

The greatest increase over time related to concerns over long-term health effects of the COVID-19 vaccine. Among vaccinated parents, the percent concerned shifted from 38% in June to 55% in September - a 17 percentage point increase - while the percent of unvaccinated parents with this major concern increased 16 percentage points from 65% in June to 81% in September.

Parent Concerns About COVID-19 Vaccine by Parent Vaccination Status, June 2021 Versus September 2021

Percent of parents who said it was a "major concern" when asked the following question:

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

National Sample of Parents, September 2021: (N=4694, Time period: 08/26/2021 - 09/27/2021), June 2021: (N=4975, Time period: 06/09/2021 - 07/06/2021)

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Figure 2: Concerns of Parents About COVID-19 Vaccine by Parent Vaccination Status, June 2021 Versus September 2021

PARTY IDENTITY. In Figure 3, Republican and Independent parents generally express more concerns about COVID-19 vaccination for children. Once again, however, the jumps in percent expressing major concern were similar regardless of party identity. For several concerns, the percent of Democratic parents expressing major concerns in September 2021 was actually *greater* than the percent of Republican parents expressing major concerns for these factors in June 2021. Further, long-term side effects of the COVID-19 vaccine had the highest number of parents expressing major concerns for all party identity categories, compared to other considerations.

Concerns of Parents About COVID-19 Vaccine By Party Identity, June 2021 Versus September 2021

Percent of parents who said it was a "major concern" when asked the following question:

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

National Sample of Parents, September 2021: (N = 4694, Time period: 08/26/2021-09/27/2021), June 2021: (N = 4975, Time period: 06/09/2021-07/06/2021)

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Figure 3: Concerns of Parents About COVID-19 Vaccine by Party Identity, June 2021 Versus September 2021

Concerns of Parents About COVID-19 Vaccine By Parent Race, June 2021 Versus September 2021

Percent of parents who said it was a "major concern" when asked the following question:

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

National Sample of Parents, September 2021: (N = 4694, Time period: 08/26/2021-09/27/2021), June 2021: (N = 4975, Time period: 06/09/2021-07/06/2021)

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Figure 4: Concerns of Parents About COVID-19 Vaccine by Parent Race, June 2021 Versus September 2021

Concerns of Parents About COVID-19 Vaccine By Parent Age and Gender, June 2021 Versus September 2021

Percent of parents who said it was a "major concern" when asked the following question:

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

National Sample of Parents, September 2021: (N = 4694, Time period: 08/26/2021-09/27/2021), June 2021: (N = 4975, Time period: 06/09/2021-07/06/2021)

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Figure 5: Concerns of Parents About COVID-19 Vaccine by Parent Age and Gender, June 2021 Versus September 2021

RACE. Across all races, a greater percentage of parents expressed major concerns about vaccinating their children against COVID-19 in September 2021 than June 2021 (Figure 4). Consistent with our [61st report](#), African American and Hispanic parents are still more likely to cite each potential challenge as a major concern. Seventy-one percent of African American parents and 70% of Hispanic parents cited long-term health effects as a major concern compared to 63% of White parents and 62% of Asian parents in September 2021.

AGE AND GENDER. In our [45th](#) and [56th](#) reports with data from February 2021 and June 2021 respectively, we found that younger mothers were more resistant to vaccinating their children against COVID-19 than older mothers and fathers of all ages. Similarly, our [61st report](#) based on data from June 2021 found that younger mothers were more likely to report considerations about vaccinating their children as major concerns than older mothers or fathers of all ages. Figure 5 demonstrates that younger mothers still report the highest level of concern for each of these considerations. Seventy-four percent of mothers ages 18-35 cite whether the vaccine has been tested enough as well as long-term health effects as major concerns.

Fathers ages 18-35 reported substantial increases in concern from June 2021 to September 2021 regarding whether the vaccine has been tested enough (from 42% to 60%, an 18 percentage point increase) and long-term health effects (from 45% to 60%, a 15 percentage point increase). In addition, the percent of fathers ages 36+ citing long-term health effects also increased markedly from 45% to 60%, a 15 percentage point increase.

Part II: Parental concerns about vaccinating children against COVID-19 by child age group and vaccination status

Generally speaking, parents had high levels of concern about the COVID-19 vaccine regardless of their child's age, with more than half of all parents expressing major concerns about these considerations (Figure 6). Overall, parents of children under age 12 and parents of children ages 12 to 18 reported the highest levels of concern about long-term health effects, followed by whether the vaccine has been tested enough, and whether it actually works.

Figure 6 shows that while parents have the same concerns regardless of the ages of their children, parents of younger kids report higher levels of concern than those with older children. For parents of kids under 12, 69% cited long-term health effects as a major concern compared to 60% of parents with kids ages 12 to 18.

Another big concern among parents was whether the COVID-19 vaccine had been tested enough. Parents with kids under 12 were 11 percentage points more likely to rate whether the vaccine has been tested enough as a major concern than parents with kids ages 12 to 18 (67% vs. 56%).

Parent Concerns About COVID-19 Vaccine by Child Age

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None

How new the vaccine is

Whether the vaccine has been tested enough

Whether the vaccine actually works

Immediate side effects (e.g., fever, nausea)

Long-term health effects

National Sample of Parents, N=4694. Time period: 08/26/2021 - 09/27/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org • Created with Datawrapper

Figure 6: Parent Concerns About COVID-19 Vaccine by Child Age

Figure 7 illustrates that parents of unvaccinated children report higher levels of concern than those whose children have already been vaccinated. Once again, long-term health effects are the most commonly cited concern with 73% of parents with unvaccinated children and 50% of parents with vaccinated children reporting it as a major concern.

While fewer parents with vaccinated children report each of these considerations as a major concern than their counterparts with unvaccinated children, it is important to note that many of them still have significant concerns. Forty-seven percent of parents with vaccinated children cite whether the vaccine actually works and 46% cite whether the vaccine has been tested enough as a major concern.

Parent Concerns About COVID-19 Vaccine by Child Vaccination Status

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None

How new the vaccine is

Whether the vaccine has been tested enough

Whether the vaccine actually works

Immediate side effects (e.g., fever, nausea)

Long-term health effects

National Sample of Parents, N=4694. Time period: 08/26/2021 - 09/27/2021.

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Figure 7: Parent Concerns About COVID-19 Vaccine by Child Vaccination Status

Part III: Likelihood of parents vaccinating children against COVID-19, by child age group

In this section, we turn from parental concerns to parents' reported likelihood of vaccinating their children against COVID-19. Figure 8 shows that if the COVID-19 vaccine was available for their children, 52% of parents with kids under 12 would be extremely or somewhat likely to vaccinate their kids. In contrast, 34% of parents reported being extremely or somewhat unlikely to vaccinate their children. It is important to note that we are reporting results from parents with at least one child under 12 and therefore they may also have kids over 12 that are already eligible to be vaccinated against COVID-19.

Likelihood of Vaccinating Kids Under 12 Against COVID-19

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

National Sample of Parents with Kids under 12, N=3310. Time period: 08/26/2021 - 09/27/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org • Created with Datawrapper

Figure 8: Likelihood of Vaccinating Kids Under 12 Against COVID-19

Figure 9 suggests that the likelihood of parents vaccinating their children under 12 is highly related to whether the parents themselves got the vaccine. Among parents vaccinated against COVID-19, over three-fourths of them said it would be "extremely likely" or "somewhat likely" that their kids would get vaccinated against COVID-19. Conversely, among unvaccinated parents of children under age 12, 58% of them said it was "somewhat unlikely" or "extremely unlikely" that they would vaccinate their kids against COVID-19.

Likelihood of Vaccinating Kids Under 12 Against COVID-19 by Parent Vaccination Status

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

Extremely likely Somewhat likely Neither likely nor unlikely Somewhat unlikely Extremely unlikely

National Sample of Parents with Kids under 12, N=3310. Time period: 08/26/2021 - 09/27/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org • Created with Datawrapper

Figure 9: Likelihood of Vaccinating Kids Under 12 Against COVID-19 by Parent Vaccination Status

In addition, parents with children under 12 years old whose kids use remote or online school instruction were much more likely to say that they would vaccinate their kids against COVID-19 (Figure 10). For kids getting remote or online education, 70% of parents of under 12 kids said it was extremely or very likely that they would vaccinate their children against COVID-19, compared to 53% of parents whose kids were receiving in-person instruction.

Likelihood of Vaccinating Kids Under 12 Against COVID-19 by School Mode

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

Extremely likely Somewhat likely Neither likely nor unlikely Somewhat unlikely Extremely unlikely

National Sample of Parents with Kids under 12, N=3310. Time period: 08/26/2021 - 09/27/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org • Created with Datawrapper

Figure 10: Likelihood of Vaccinating Kids Under 12 Against COVID-19 by School Mode

Part IV: Vaccination against COVID-19 for kids ages 12 to 18

Figure 11 shows that parents of older children are split. Among those with children 12 to 18, nearly half have had all their children vaccinated (47%) while nearly as many say none of their children have been vaccinated (46%).

COVID-19 Vaccination in Kids Ages 12 to 18

Have any of your children ages 12 to 18 received at least one dose of a COVID-19 vaccine?

All of my children age 12 to 18 have received a COVID-19 vaccine

Some of my children age 12 to 18 have received a COVID-19 vaccine, others have not

None of my children age 12 to 18 have received a COVID-19 vaccine

National Sample of Parents with Kids Ages 12-18, N=2232. Time period: 08/26/2021 - 09/27/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org • Created with Datawrapper

Figure 11: COVID-19 Vaccinations in Kids Ages 12 to 18

Parent vaccination status is also strongly related to vaccination status of their kids. Figure 12 shows that vaccinated parents were 50 percentage points more likely to report all their kids ages 12 to 18 were vaccinated compared to unvaccinated parents (65% vs. 15%).

COVID-19 Vaccination in Kids Ages 12 to 18 by Parent Vaccination Status

Have any of your children ages 12 to 18 received at least one dose of a COVID-19 vaccine?

■ All of my children ■ Some of my children ■ None of my children

Vaccinated

Unvaccinated

National Sample of Parents with Kids Ages 12-18, N=2232. Time period: 08/26/2021 - 09/27/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org • Created with Datawrapper

Figure 12: COVID-19 Vaccinations in Kids Ages 12 to 18 by Parent Vaccination Status

Finally, parents with kids going to school in person are more likely to report all their kids ages 12 to 18 are vaccinated against COVID-19 than parents with kids in remote or hybrid instruction. Figure 13 shows that among parents of 12- to 18-year-olds, those with kids going to school in person are 11 points and 15 points more likely to report vaccinating all their kids than parents with kids going to school remotely through online instruction (52% vs. 41%) or in a hybrid format (52% vs. 37%).

COVID-19 Vaccination in Kids Ages 12 to 18 by School Mode

Have any of your children ages 12 to 18 received at least one dose of a COVID-19 vaccine?

National Sample of Parents with Kids Ages 12-18, N=2232. Time period: 08/26/2021 - 09/27/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org • Created with Datawrapper

Figure 13: COVID-19 Vaccinations in Kids Ages 12 to 18 by School Mode

Appendix

The following are additional demographic differences in parental concerns over COVID-19 vaccination of children, including parent gender, parent age, parent educational attainment, and community type (urban-rural).

GENDER. While mothers are more likely to cite each of these considerations as a major concern than fathers, both mothers and fathers increased their level of concern by similar margins from June 2021 to September 2021 (Figure A1). The largest increase was among those citing long-term health effects as a major concern, with a 14 percentage point increase in mothers (56% vs. 70%) and a 15 percentage point increase in fathers (45% vs. 60%).

Concerns of Parents About COVID-19 Vaccine By Parent Gender, June 2021 Versus September 2021

Percent of parents who said it was a "major concern" when asked the following question:

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

National Sample of Parents, September 2021: (N = 4694, Time period: 08/26/2021-09/27/2021), June 2021: (N = 4975, Time period: 06/09/2021-07/06/2021)

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Figure A1: Concerns of Parents About COVID-19 Vaccine by Parent Gender, June 2021 Versus September 2021

AGE. Figure A2 suggests that younger parents are still more likely than older parents to report each of these considerations as a major concern, however, both age groups saw substantial increases in concern from June 2021 to September 2021. Younger parents were 15 percentage points more likely (68% vs. 53%) and older parents were 16 percentage points more likely (64% vs. 48%) to cite long-term health effects as a major concern in September 2021 than in June 2021. It is important to consider that parental age is correlated with offspring age so younger parents are more likely to have children under 12 who are still ineligible for the COVID-19 vaccine and therefore for whom these considerations are still hypothetical.

Concerns of Parents About COVID-19 Vaccine By Parent Age, June 2021 Versus September 2021

Percent of parents who said it was a "major concern" when asked the following question:

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

National Sample of Parents, September 2021: (N = 4694, Time period: 08/26/2021-09/27/2021), June 2021: (N = 4975, Time period: 06/09/2021-07/06/2021)

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Figure A2: Concerns of Parents About COVID-19 Vaccine by Parent Age, June 2021 Versus September 2021

EDUCATIONAL ATTAINMENT. While concern increased among all parents regardless of educational attainment, parents without a college education are more likely to cite each consideration as a major concern (Figure A3). Parents without a college degree are 15 percentage points more likely than parents with a college degree to report how new the vaccine is (60% vs. 45%), whether the vaccine has been tested enough (68% vs. 53%), whether the vaccine actually works (64% vs. 49%), and immediate side effects (60% vs. 45%) as a major concern in September 2021.

Concerns of Parents About COVID-19 Vaccine By Parent Educational Attainment, June 2021 Versus September 2021

Percent of parents who said it was a "major concern" when asked the following question:

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

National Sample of Parents, September 2021: (N = 4694, Time period: 08/26/2021-09/27/2021), June 2021: (N = 4975, Time period: 06/09/2021-07/06/2021)

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Figure A3: Concerns of Parents About COVID-19 Vaccine by Parent Educational Attainment, June 2021 Versus September 2021

COMMUNITY TYPE. While the percentage of respondents in all community types expressing major concerns about vaccinating their children has increased from June 2021 to September 2021, rural parents still express higher levels of concern than their suburban and urban counterparts (Figure A4).

Concerns of Parents About COVID-19 Vaccine By Community Type, June 2021 Versus September 2021

Percent of parents who said it was a "major concern" when asked the following question:

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

National Sample of Parents, September 2021: (N = 4694, Time period: 08/26/2021-09/27/2021), June 2021: (N = 4975, Time period: 06/09/2021-07/06/2021)

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Figure A4: Concerns of Parents About COVID-19 Vaccine by Community Type, June 2021 Versus September 2021