

## Correlation between Parental Vaccine Hesitancy, Socio-demographic Factors, and Novel SARS-CoV-2 Vaccination in Puerto Rico

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**Objective:** Accurate and inaccurate vaccination information is readily accessible. Unfortunately, the information found by parents may be wrong. Due to the limited studies on this issue in Puerto Rico, we aim to correlate Puerto Rican parents' socio-demographic characteristics to their vaccine hesitancy level.

**Methods:** We quantified vaccine hesitancy in Puerto Rican parents and legal guardians who were at least 18 years old using the Parent Attitudes about Childhood Vaccines survey, their attitudes towards a possible SARS-CoV-2 vaccine, and the correlation between vaccine hesitancy and socio-demographic factors. The subjects were recruited through social networks and by distributing the online survey among pediatricians in Puerto Rico.

**Results:** We identified a vaccine hesitancy prevalence of 38.3%, higher than has been found by other similar studies. The results also demonstrated a significant association between vaccine hesitancy, income, and the type of legal guardian. Participants with a household income less than \$75,000 and a legal guardian were more likely to be vaccine-hesitant. Most participants surveyed (80.8%) would not immediately vaccinate their children against SARS-CoV-2, independent of vaccine-hesitancy status, citing general worries of vaccine safety and side effects.

**Conclusion:** Our results demonstrate the need for better vaccine-education campaigns in Puerto Rico and the challenges that SARS-CoV-2 vaccine fears pose to the proper control of the COVID-19 pandemic. It should be noted that at the time of the survey described herein, a COVID-19 vaccine had yet been developed. [*PR Health Sci J* 2022;41(4):185-191]

*Key words:* Vaccine hesitancy, Anti-vaccine movement, COVID-19, SARS-CoV-2, Puerto Rico

Vaccine hesitancy, the refusal or delayed acceptance of vaccines (1), has existed since Dr. Jenner created the first vaccine (2). Today, the internet has made information on scientific and medical data, both accurate and inaccurate, easily accessible and difficult to assess by non-specialists. Unfortunately, much of the vaccine-related data on the internet supports the anti-vaccine movement (3). For instance, recent anti-vaccination groups claim various detrimental health effects of vaccination, such as lymphoblastic leukemia and autoimmune and neurological pathologies (2,4). Even though the anti-vaccine community arguments are frequently not evidence-based, they have been very effective in convincing many parents by shifting the context of the information, skewing data, claiming that vaccines are toxic or ineffective, and censoring opposition, among others strategies (3).

Many researchers have tried to quantify and analyze parental vaccine hesitancy. For example, Opel et al. created a survey that accurately assessed parental vaccine hesitancy (5). They called their survey the Parent Attitudes about Childhood Vaccines

(PACV) survey and found it had content and face validity. In subsequent studies, they discovered that the survey had construct validity, predictive validity, and reliability (5,6,7).

Several researchers in the US and other countries have used the PACV to assess parental hesitancy toward vaccination (8–11). A study done in the US used the PACV to verify the correlation between vaccine hesitancy and the number of days children were under-immunized (8). They found an increasingly high PACV score associated with increased number of days children were under-immunized. Another study conducted in Malaysia used the PACV to correlate socio-demographic factors with vaccine hesitancy (9). The authors observed that

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vaccine-hesitant parents were younger than their unhesitant counterparts ( $P < .001$ ), that first-time mothers were more hesitant than non-first-time mothers ( $P < .001$ ), non-Muslim parents were more hesitant than Muslim parents ( $P = 0.026$ ), and unemployed parents were more hesitant than employed parents ( $P < .035$ ) (9). The reported vaccine hesitancy among parents was 11.6% (9). In 2019, Cunningham and colleagues translated the PACV survey into Spanish (12).

Similar forms of the PACV have been used in studies on vaccination (specifically influenza and HPV vaccines) in the Puerto Rico population (13–15). According to one study, 49 out of 229 Puerto Rican participants received the influenza vaccine during the 2013-2014 influenza season—an 18% adjusted vaccination rate (13). Common reasons for not being vaccinated included: limited access to vaccination providers, believing that the vaccine was unnecessary, and safety concerns. The study found a positive correlation ( $P < .01$ ) between those vaccinated and those recommended to get vaccinated from their healthcare provider, suggesting that health providers can impact vaccination rates. A separate group of researchers designed a cross-sectional study surveying 566 women ages 16-64 regarding their knowledge and experience with the HPV vaccine (14). Only 4.6% of women had received at least 1 dose of the vaccine, and 38.8% of those women had not received the vaccine, because they had never heard about it. Other reasons for not getting the vaccine included not considering themselves at risk for HPV, safety concerns, and lack of recommendation from the health care provider. A third study sampled two groups of parents ( $n = 279$ ): those at the Plaza Las Américas shopping mall in San Juan, Puerto Rico, and those who homeschooled their children (15). Researchers found that only 2.85% of parents from the shopping mall had not vaccinate their children, compared with 20% of parents who homeschooled their children. In both groups, parents who had not vaccinate their children also held negative attitudes towards vaccination and found no significant relationship between attitudes regarding vaccination and individuals' educational attainment levels.

Since 2020, the novel SARS-CoV-2 virus represent new public health challenges in Puerto Rico and the world (16–20). Efforts to quickly create a vaccine against this new virus have been taking place worldwide (21–23). Still, patient compliance—including the pediatric population is essential to achieve the desired results when the vaccine is ready (24–26). This study aimed to survey parental attitudes toward vaccination, correlate parental vaccine hesitancy with socio-demographic, and determine the potential SARS-CoV-2 vaccine hesitancy in the Puerto Rican population to provide data for future educational programs regarding childhood vaccination in Puerto Rico.

## Methods

### Setting and Sample

We conducted an internet-based survey using a non-probabilistic sampling design to obtain a convenient sample

of parents and legal guardians who were at least 18 years recruited through pediatrician's offices around Puerto Rico. The digital survey was created using the Survey Monkey platform and distributed from August to October 2020. This online approach was selected to comply with the pandemic-provoked lockdown imposed by the governor of Puerto Rico's Executive Order 2020-023, intended to avoid the propagation of SARS-CoV-2. The study aimed to survey parents and legal guardians older than 18 years, with at least 1 child younger than 18 years, and currently legal residents of Puerto Rico. The participant could be a single parent, a parent with divided custody, a couple, or a child's legal guardian. In addition, the survey was promoted via Facebook's advertising platform and Instagram social sites, with both targeting people that met our inclusion criteria. Both domains have been used efficiently for subject recruitment by other health-related studies (27).

### Ethical considerations

The San Juan Bautista School of Medicine Institutional Review Board (IRB) approved the study, assigning it number EMSJBIRB-8-2020. The informed consent was given at the beginning of the survey, and if a potential participant did not consent, the survey was ended. The survey was completely confidential, and no identifiable participant data were collected.

### Questionnaire

The survey used in this study was available in both English and Spanish. It included the study's goal, IRB number, inclusion/exclusion criteria, informed consent, the Parent Attitudes about Childhood Vaccines (PACV) questionnaire (5-7,12), questions regarding willingness to administer the SARS-CoV-2 vaccine to the child, should it become available, and sociodemographic questions (parental age group, first child, parental relationship, type of legal guardian, marital status, household income, highest education level, and children living in household). Participants were also asked to consider all vaccines in general, excluding the seasonal influenza vaccine.

The PACV is a 15 items questionnaire divided into the domains of behavior (item 1-2), safety and efficacy (items 7-10), and general attitudes (items 3-6 & 11-15). We assigned a score of 2 to hesitant responses, not sure responses were scored of 1, and non-hesitant responses received a score of 0. Respondents that answered "yes" or "no" on Q1 (Have you ever delayed your child getting a shot for reasons other than illness or allergy?) and Q2 (Have you ever decided not to have your child get a shot for reasons other than illness or allergy?) had a total score of 30. Respondents that answered "don't know" in either Q1 or Q2 had a total score of 29. Respondents with a "don't know" in Q1 and Q2 had a total score of 28. We converted the total raw score to a 0-100 scale. The PACV scores were dichotomized into 2 categories, non-hesitant (score  $< 50$ ) and hesitant (score  $\geq 50$ ).

**Data collection**

The data were recorded in Survey Monkey’s database and encrypted by Transport Layer Security (TLS) cryptographic protocol. After the survey was closed, the data were exported to IBM Statistical Package for Social Sciences (SPSS, Version 26) for analysis.

**Statistical analysis**

A X<sup>2</sup> test of independence was performed to determine associations between vaccine hesitancy, socio-demographic factors, and whether parents considered administering a SARS-CoV-2 vaccine to their children. A power analysis of the chi-square test and contingency tables was performed and showed that for all tests the power was larger than 0.97 (test performed using the “power.chisq.test” function from the DescTool package (30).

**Results**

There were a total of 534 participants, out of which 472 responded to the PACV questionnaire (response rate 88%). Out of these 472, 6 did not answer 1 of the PACV questionnaire questions, which was interpreted as a “don’t know” or “not sure” answer. When correlating socio-demographic data with hesitancy as determined by >50% in the PACV score, each question was analyzed based on the number of respondents for each socio-demographic factor.

Most participants were married (60%), mothers (90%), older than thirty years (87%), that had only one child (61%). Half of the participants had only one child in their household, while the other half had 2 or more children living in at home. Most of the respondents had a high educational level, with more than 81% having more than a bachelor’s degree, and an income level below \$50,000 (60%).

Although about half (51.5%) of the participants in this study considered themselves non-hesitant toward vaccines, 40.7% reported having delayed giving their child a vaccine at some point in time, and 29.2% decided not to provide a vaccine. Even though some respondents delayed vaccinating their children, most (65.0%) wanted them to get all the recommended vaccinations. Most of the participants were concerned about vaccine adverse effects (77.7%), vaccine

safety (74.7%), and that the vaccine might not prevent the disease (60.6%). Only 58.7% trusted the information they received about vaccinations, but most trusted their pediatrician (88.7%) and felt they could openly discuss the topic with them (82.4%) (Table 1).

From the PACV questionnaires, 181 participants were hesitant (score >50%). Compared to the non-hesitant group, there was a statistically significant difference (P <.05) based on household income and the type of legal guardian the participant was. The other socio-demographic characteristics surveyed, such as education level, marital status, age group, parental relationship, and the number of children living in the household,

**Table 1.** Individual PACV statements and participant’s responses (N=472).

No.	Item	Response	N (%)
1	Have you ever delayed having your child get a shot (not including seasonal flu or swine flu (H1N1) shots) for reasons other than illness or allergy?	<b>Yes</b>	192 (40.7)
		No	276 (58.5)
		Don't know	4 (0.8)
2	Have you ever decided not to have your child get a shot (not including seasonal flu or swine flu (H1N1) shots) for reasons other than illness or allergy?	<b>Yes</b>	138 (29.2)
		No	331 (58.6)
		Don't know	3 (0.6)
3	How sure are you that following the recommended shot schedule is a good idea for your child?	<b>0-5</b>	137 (29.0)
		6-7	67 (14.2)
		8-10	268 (56.8)
4	Children get more shots than are good for them.	<b>Agree</b>	196 (41.5)
		Disagree	167 (35.4)
		Not Sure	109 (23.1)
5	I believe that many of the illnesses that shots prevent are severe.	<b>Agree</b>	359 (76.0)
		Disagree	55 (11.7)
		Not Sure	58 (12.3)
6	It is better for my child to develop immunity by getting sick than to get a shot.	<b>Agree</b>	100 (21.2)
		Disagree	241 (51.0)
		Not Sure	131 (27.8)
7	It is better for children to get fewer vaccines at the same time.	<b>Agree</b>	286 (60.5)
		Disagree	80 (16.9)
		Not Sure	106 (22.6)
8	How concerned are you that your child might have a serious side effect from a shot?	<b>Concerned</b>	367 (77.7)
		Not Concerned	92 (19.5)
		Not sure	13 (2.8)
9	How concerned are you that anyone of the childhood shots might not be safe?	<b>Concerned</b>	353 (74.7)
		Not Concerned	96 (20.4)
		Not sure	23 (4.9)
10	How concerned are you that a shot might not prevent the disease?	<b>Concerned</b>	186 (60.6)
		Not Concerned	142 (30.1)
		Not sure	44 (9.3)
11	If you had another infant today, would you want him/her to get all the recommended shots?	<b>Yes</b>	307 (65.0)
		No	99 (21.0)
		Don't know	66 (14.0)
12	Overall, how hesitant about childhood shots would you consider yourself to be?	<b>Hesitant</b>	209 (44.3)
		Not Hesitant	243 (51.5)
		Not sure	20 (4.2)
13	I trust the information I receive about shots.	<b>Disagree</b>	100 (21.2)
		Agree	277 (58.7)
		Not sure	95 (20.1)
14	I am able to openly discuss my concerns about shots with my child’s doctor.	<b>Disagree</b>	46 (9.8)
		Agree	389 (82.4)
		Not sure	37 (7.8)
15	All things considered; how much do you trust your child’s doctor?	<b>0-5</b>	53 (11.3)
		6-7	45 (9.5)
		8-10	374 (79.2)

**Bold** responses indicate hesitancy.

did not show a statistically significant association with vaccine hesitancy (Table 2).

Participants were asked whether they would consider vaccinating their children against SARS-CoV-2, the majority (80.8%), independent of whether they were hesitant, answered “not now” or “never.” As expected, there was a statistically significant association between the choice of vaccinating against SARS-CoV-2 and vaccine hesitancy. The majority of those that answered “never” (89.3%) were vaccine hesitant. The majority of those who answered they would immediately vaccinate their children against SARS-CoV-2 were non-vaccine-hesitant parents (Table 3).

Respondents who would not vaccinate their child against SARS-CoV-2 were asked to answer how worried they were about six different statements about the vaccine. The majority of respondents (62.3%) answered they were severely worried

about the vaccine being new and not trusting the current information. Also, 67.3% of respondents were concerned that the vaccine could cause disease in their child, and 71.7% thought the vaccine were unsafe. Although most questioned the vaccine’s safety, 61.7% were also worried that it might not protect against the disease, and 32% were severely concerned that their child did not need said vaccine (Table 4).

### Discussion

In this study, the measured parental vaccine hesitancy using the PACV questionnaire was 38.3%, a level noticeably higher than similar studies in other countries, ranging from 8.9 to 34.7% (6–11,31). Additionally, 40.7% of parents self-reported having delayed vaccinations, and 29.2% refused childhood vaccinations. These results are similar but higher than a study conducted in Puerto Rico in 2016, where 32% reported delayed vaccinations and 13% reported refusal of childhood vaccinations (15).

Except for income and type of legal guardian, the other socio-demographic variables studied (parental age group, first child, parental relationship, marital status, highest education level, and children living in household) did not show a statistically significant association with vaccine hesitancy. Similar results have been reported in other studies in the USA (6,32). Analysis from the 2002 Health Styles survey looking for associations between beliefs and behavior questions with hesitancy to compulsory vaccines found that the only significant socio-demographic variable after the final logistic regression model was household income (32). Participants opposed to mandatory vaccination were more likely to have lower income (32). Using the PACV, Opel et al. noticed that parents with household income > \$75,000 were less likely to agree that getting sick is a better way to gain immunity than vaccination and less likely to be concerned about vaccines’ serious side effects (6). Nevertheless, the opposite has also been reported in the US, where vaccine-hesitant parents came from higher-income households than non-refusers (33). A study by Wagner and colleagues showed that 5 low-and-middle-income countries in Latin America, Africa, and Asia, were strongly supportive of childhood vaccination and consider them safe, effective, and important for children (34). However, concerns about the adverse effects of vaccines were also reported (34).

Our results showed that mothers (90%) were the legal guardians with the most response to

**Table 2.** Association between vaccine hesitancy and socio-demographic factors.

	Vaccine-Hesitant n = 181, n (%)*	Non-vaccine-hesitant n = 291, n (%)*	Total n = 472	P-value
Age group (Years)				
18-29	25 (41.0)	36 (59.0)	n = 457	0.615
30 or more	149 (37.6)	247 (62.3)		
Total	174	283		
First child				
Yes	110 (38.9)	173 (61.1)	n = 466	0.801
No	69 (37.7)	114 (62.3)		
Total	179	287		
Parental relationship				
Mother	163 (38.9)	256 (61.1)	n = 466	0.054
Father	10 (23.8)	32 (76.2)		
Total	173	288		
Type of legal guardian				
Parents	173 (37.5)	288 (62.5)	n = 472	0.019
Other legal guardian	8 (72.7)	3 (27.3)		
Marital status				
Single	51 (43.2)	67 (56.8)	n = 462	0.366
Married	100 (35.7)	180 (64.3)		
Living with partner	25 (39.1)	39 (60.9)		
Total	176	286		
Income				
\$30,000 or less	68 (42.8)	91 (57.2)	n = 461	0.001
\$30,001 - \$50,000	53 (44.2)	67 (55.8)		
\$50,001 - \$75,000	31 (40.8)	45 (59.2)		
\$75,000 or more	23(21.7)	83(78.3)		
Total	175	286		
Highest educational level				
High School or less	10 (35.7)	18 (64.3)	n = 463	0.648
2-year title or did not finish college	28 (45.2)	34 (54.8)		
Bachelor’s degree	93 (37.5)	155 (62.5)		
Postgraduate studies	45 (36)	80 (64)		
Total	174	283		
Children living in Household				
One	88 (37.3)	148 (62.7)	n = 459	0.716
Two	60 (37.0)	102 (63.0)		
Three or more	26 (42.6)	35 (57.4)		
Total	174	285		

\*Percentage of vaccine-hesitant or non-hesitant parents by group. P-value determined by the Chi-Square test of independence.

**Table 3.** Association between vaccine hesitancy and SARS-CoV-2 vaccination.

	Vaccine-Hesitant n = 172, n(%)*	Non-vaccine-hesitant n = 278, n(%)*	P-value
<i>If there is a vaccine against SARS-CoV-2 (COVID-19), would you allow it to be administered to your child?</i>			
Immediately	10 (11.6)	76 (88.4)	<b>&lt;0.001</b>
Not now	112 (36.4)	196 (63.6)	
Never	50 (89.3)	6 (10.7)	
Total	172	278	

\*Percentage of vaccine-hesitant or non-hesitant parents by group. P-value determined by the Chi-Square test of independence.

our survey which may be due to mothers being the ones who usually take their children to the pediatrician, this is consistent with other studies in which mothers are the primary parent taking decision with numbers ranging from 71.1 to 91.4% (9,35,36). These studies also show that legal guardians other than parents, were grandparents, and these were also significantly more hesitant than their parental counterparts. A review paper about grandparents' influence on vaccine decision found they often influence parents in their judgment to vaccinate children in Western and Occidental societies (37). Some parents vaccinate their children because they remember being vaccinated by their parents. Others were positively influenced by parents who witnessed vaccine-preventable diseases. Nevertheless, a grandparents' positive or negative role in childhood vaccination is not well-established yet (37).

Correlation of SARS-CoV-2 vaccination tendencies with vaccine hesitancy found that hesitant parents were more likely to delay or not want to vaccinate their child against SARS-CoV-2. Nonetheless, most respondents decided they would not vaccinate their child immediately or never (80.8%), regardless of their vaccine-hesitant status, demonstrating a general fear toward the SARS-CoV-2 vaccine. This was further corroborated by participants citing reasons like having limited information (62.3%) and general vaccine safety worries (71.7%). Hesitancy about new vaccines is a phenomenon that has been described in the literature. For example, when the HPV vaccine was introduced, and Influenza (H1N1) vaccine was highly advocated after the 2009 pandemic, literature on barriers and promoters of vaccine acceptance increased three-fold during 2006-2011 due to debates about vaccines safety, confidence, and effectiveness (38). In their study, Wagner and colleagues found that even with strong support towards children vaccination, concerns related to the perceived relative risk of new vaccines against older vaccines were present among the populations (34).

In June 2020, 13,426 people from 19 countries were surveyed regarding the acceptance rates of a SARS-CoV-2

vaccine, with 71.5% being somewhat to very likely to take the vaccine (39). Nevertheless, the paper cites an article published in September 2020, after their survey took place, that shows that the percentage of the USA population that would take the vaccine declined to 42% (39,40). It appears that the closer scientists are to developing a safe vaccine that works, the more hesitant and concerned the population. The Pew Research Center has also reported this paradigm, although the most updated data shows a resurgence of

vaccine acceptance (72% May 2020, 51% September 2020, 60% December 2020) (41).

Since this study relied on self-reported data, there is no way to corroborate the information provided by the participants. This fact could mean delayed vaccination and vaccination refusal data could be under-reported. This study also relied on an online format for distribution and promotion, which extended our reach to a large base of people who met our inclusion criteria while limiting exposure during the COVID-19 pandemic. Although the online recruitment method proved useful, it could inadvertently have introduced a type of selection bias that might tend to exclude people with limited internet access, non-users of the platforms where the advertising was done, low technological dexterity. This limitation could also explain the low sample size for the other type of legal guardian, grandparents. Another bias that could be present in the study is geographical one, there could be a larger group from the metropolitan region of Puerto Rico that could differ that from rural areas. Future studies should further evaluate the association between vaccine hesitancy and the legal guardians other than parents by recruiting participants directly in pediatricians' offices to avoid the selection bias toward those without internet or low technological dexterity that an online format introduces. Additionally, our study's small sample of legal guardians' may have swayed our results, so a larger group of volunteers may give us more insight in this regard.

At the time of data collection, no SARS-CoV-2 vaccine was available. Our study results show the need for proper vaccine education campaigns targeting the Puerto Rican parent and

**Table 4.** Frequency of parental statements regarding reasons to not vaccinate against SARS-CoV-2.

Statement	Not worried	Slightly worried	Moderately worried	Severely worried	Don't know	Total
The vaccine is new and I don't trust the current information.	1 (0.2)	16 (3.4)	63 (13.3)	294 (62.3)	7 (1.5)	381
The vaccine does not work.	16 (3.4)	22 (4.7)	75 (16.6)	213 (45.1)	52 (11.0)	378
My child does not need it.	59 (12.5)	25 (5.3)	54 (11.4)	151 (32.0)	74 (16.3)	363
The vaccine can cause disease in my child.	14 (3.0)	25 (5.3)	39 (8.3)	280 (59.3)	24 (5.1)	382
The vaccine is not natural	83 (17.5)	37 (7.8)	50 (10.6)	167 (35.4)	29 (6.1)	366
The vaccine is not safe	3 (0.6)	16 (3.4)	72 (15.3)	266 (56.4)	17 (3.6)	374

legal guardian population, especially amid the challenges that SARS-CoV-2 vaccine fears pose to optimally control of the COVID-19 2020 pandemic.

We recognize that the convenience sampling used in this study may have introduced biased results, such as the facts that those who answered the survey were parents who may tend to be more active users of healthcare services and that those parents and legal guardians without access to the internet were excluded. An advantage of this type of study is that it presents little to no cost to the research team, while simultaneously allowing to have reach a larger population that could not otherwise be reached, especially now, during the pandemic. Consequently, a drawback is that the survey may not necessarily be generalized to the entire population of interest, in this case, of Puerto Rico. We also looked at the demographic data obtained from the Census 2020 in Puerto Rico, and our sample mimics some of the socio-demographic characteristics of the Puerto Rican population. Still, we cannot compare the data due to the lack of stratification in the information provided. Moreover, the comparison of our findings with previous literature is limited because the methods and design varied among surveys (28,29).

Although the age of the children could be an important factor in the decision or hesitancy of parents to vaccinate their children, the age of the children was not included as part of the sociodemographic questionnaire when using the PACV. Not adding the child age to the sociodemographic questionnaire was a miss opportunity, especially when most of the vaccine schedules occurs  $\leq 6y/o$ . Further studies are needed to assess how vaccine hesitancy is distributed among different age groups and to capture age of the participants' children, with a special emphasis in the children  $\leq 6y/o$  due to the period in which the most part of vaccination occurs, which can further help point to which age group the information campaign should be targeted.

## Resumen

**Objetivo:** Información certera y errada sobre vacunación es de fácil acceso. Desafortunadamente, la información encontrada por los padres frecuentemente es errada. Debido a estudios limitados en Puerto Rico, buscamos correlacionar las características sociodemográficas de padres puertorriqueños con su nivel de indecisión a la vacunación. **Métodos:** Cuantificamos la indecisión a la vacunación entre padres o tutores legales puertorriqueños de 18 años o más utilizando la encuesta "Parent Attitudes about Childhood Vaccines", sus actitudes hacia una posible vacuna contra el SARS-CoV-2 y la correlación entre la indecisión a la vacunación y factores sociodemográficos. Reclutamos voluntarios a través de redes sociales y mediante la distribución de la encuesta en línea en pediatras de Puerto Rico. **Resultados:** Identificamos una prevalencia de indecisión a la vacunación de 38.3%, más alta que en otros estudios similares. También demostramos una asociación significativa entre la indecisión a la vacunación, ingresos y tipo de tutor legal. Participantes con un ingreso familiar de menos de \$75,000

y un tutor legal tenían más probabilidades de ser reacios a la vacunación. La mayoría de los encuestados (80.8%) no vacunarían inmediatamente a sus hijos contra el SARS-CoV-2, independientemente del estado de indecisión a la vacunación, citando preocupaciones sobre seguridad y efectos secundarios. **Conclusión:** Nuestros resultados muestran la necesidad de campañas educativas sobre la vacunación en la población puertorriqueña y los desafíos que el temor a la vacuna contra el SARS-CoV-2 representan para controlar la pandemia del COVID-19, la cual estaba siendo desarrollada.

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