

Caregiver Perceptions and Acceptance of the COVID-19 Vaccine among children age 5-17 in Hawaii

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INTRODUCTION

Early childhood immunizations are an important and cost-effective way of protecting infants and children from preventable diseases⁷. Oral health care providers, including pediatric dentists, have been recognized as playing a vital role in educating parents and patients regarding the importance of immunizations, as they can have a positive influence on parental decisions to vaccinate their children.^{4,9} Caregivers' perceptions of vaccine recommendations in pediatric dental settings have been investigated in previous studies, with dentists playing an essential role in HPV vaccine initiatives and prevention of oropharyngeal cancer¹. However, various levels of hesitancy exist in different populations toward receiving vaccinations for a multitude of reasons. Several surveys have discovered high rates of COVID-19 vaccine hesitancy in Hawaii^{2,3}. The aim of the study was to ascertain the attitudes of caregivers towards COVID-19 and its vaccinations, with the goal of understanding their decision-making process regarding vaccinating their children in Hawaii.

PURPOSE

This study in the Hawaiian community aims to better understand the relationship between COVID-19 vaccination status in caregivers and the vaccination rates of children 5-17 years old. The purpose of this study was to investigate the number of children in community dental clinics who are vaccinated against COVID-19 in the state of Hawaii. Another purpose of the study was to evaluate caregivers' perceptions of the COVID-19 disease and vaccinations. Specifically, the study aimed to understand caregiver's rationale for choosing to abstain from or vaccinate their children, ages 5-17, among five clinic sites located on different islands within the state of Hawaii. Lastly the study will help assess caregiver willingness to discuss preventable diseases and routine vaccinations with their child's oral health providers. The study seeks to provide valuable insight which would help allow for more efficient public health strategies that may increase vaccination rates, improve health outcomes, and increase scientific literacy in the community.

METHODS

This is an exploratory quantitative cross-sectional survey study. Surveys were distributed at five different dental community health centers located in Maui, Lanai, Oahu, or Big Island, Hawaii. From February 2022 to December 2022, 511 paper surveys were collected anonymously from caregivers of children between the ages of 5-17 years old. Guardians of children receiving a periodic or comprehensive oral evaluation were selected. If a guardian had more than one child, survey responses were based on the eldest child. Since the COVID-19 vaccine has only been approved in children five years of age and older, the inclusion criteria consist of caregivers of children who are eligible to receive the vaccine: children ages 5-17. Participation in the survey was independent of the care received and strictly voluntary.

FIGURE

Table 1

Ethnicity of Caregivers by Dental Clinic

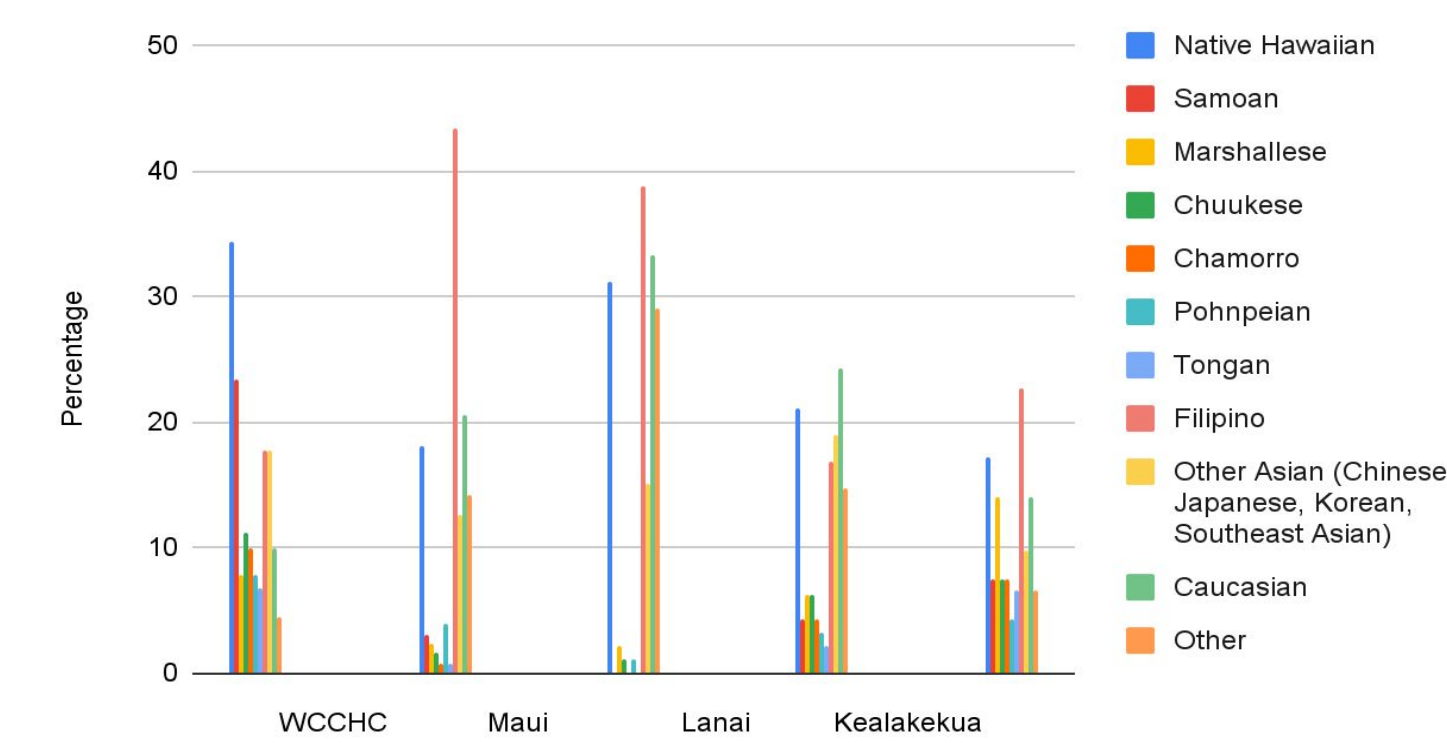


Table 2

Childhood Vaccination Status by Age

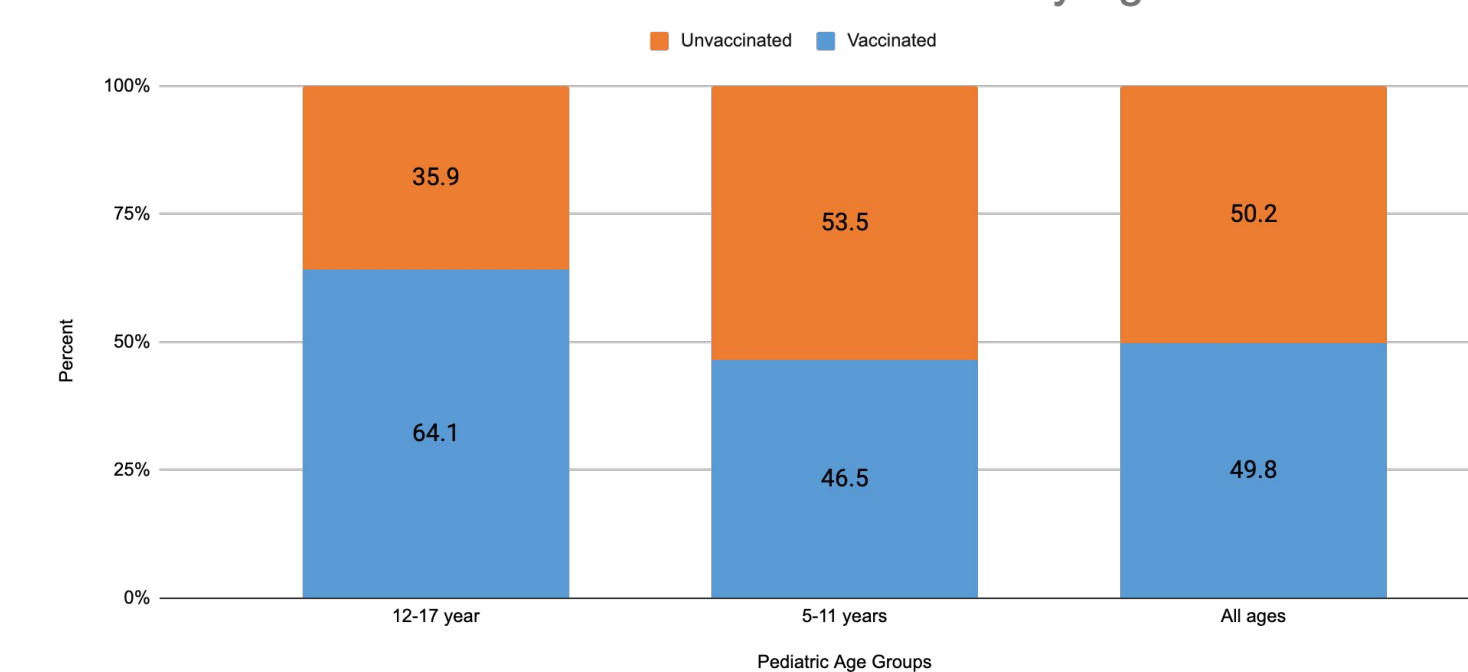


Table 1 shows the demographic data of all 5 clinics in the Hawaiian Islands. **Table 2** show the the vaccine rates among kids ages 5-11 years old with one or more doses of the COVID-19 vaccine was 46.5%, and among kids ages 12-17 with one or more doses was 64.1%.

FIGURE

Table 3

COVID-19 Vaccination Doses

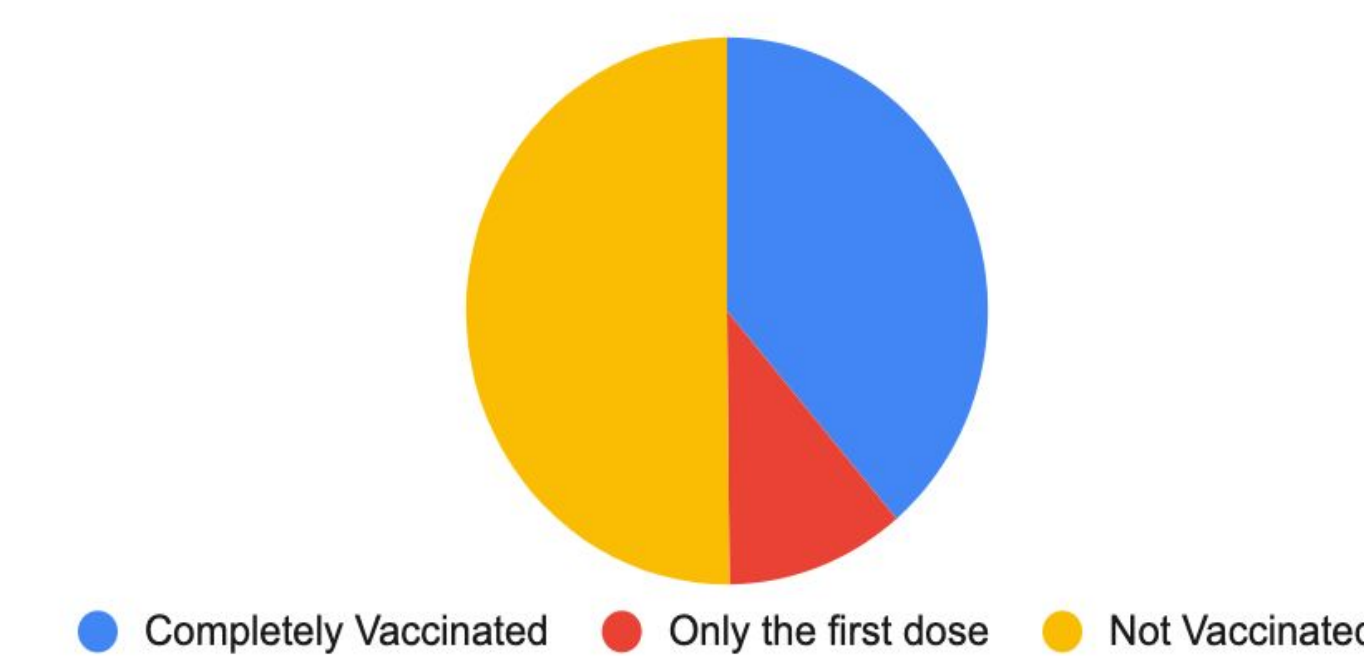
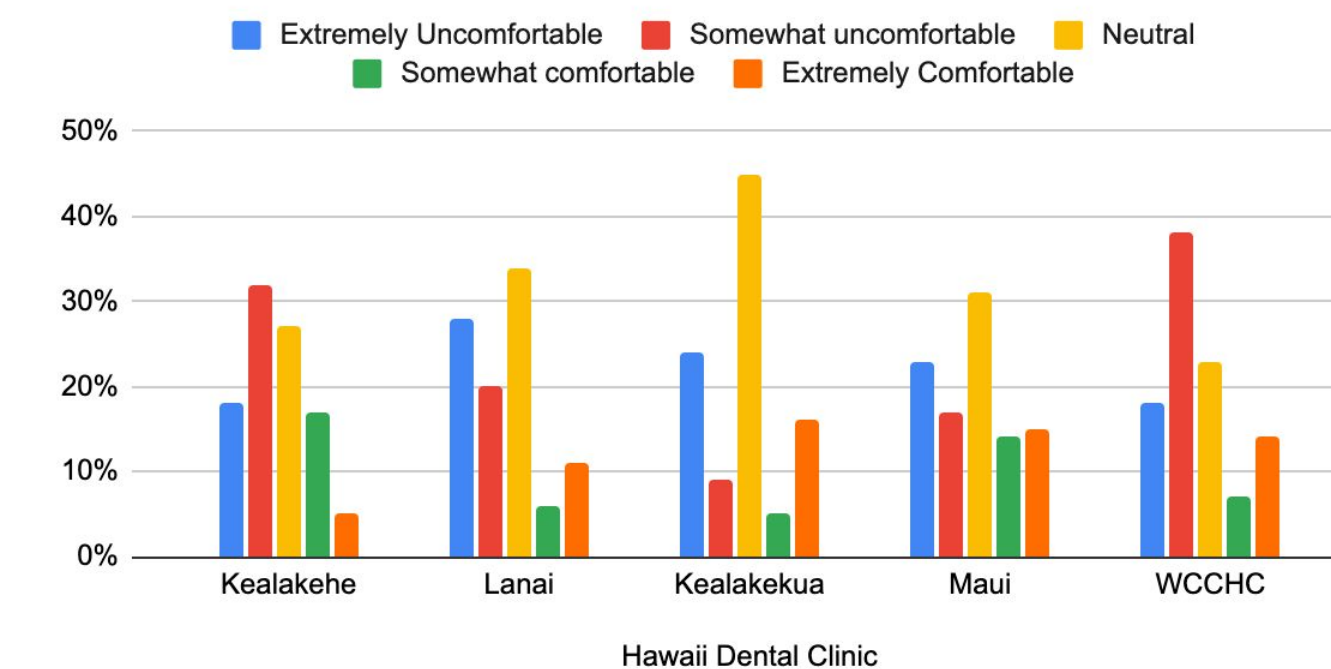


Table 3 shows the rate of vaccination doses where 38.7% of children ages 5-17 years old were completely vaccinated, 11.1% only had one dose, 50.2% were not vaccinated. **Table 4** shows the distribution of clinics with caregivers showing their comfort levels of dentists recommending the COVID-19 vaccination to their children.

Table 4

Comfort levels of caregivers for dentists to recommend the COVID-19 vaccine to children



RESULTS

Of the 511 children surveyed, only 50% of those who were seen in the Hawaii community dental clinics have received one or more doses of the COVID 19 vaccine. The main motivations for vaccinating their children was because a healthcare provider talked to them about receiving the COVID 19 vaccine (20.4%) and getting the vaccine may prevent other children from getting sick (18.5%). On the other hand, 22.5% of parents believe in natural immunity, 18.7% were concerned with the long term vaccine risks, and 18.2% were worried that the vaccines were developed too quickly. We found that there was no association between knowing someone who had COVID-19 and belief that their child may be at risk of getting sick from COVID-19 (P>0.05). Parents responded that their comfort level of discussing the COVID-19 vaccine with dental providers were as follow: Extremely uncomfortable (108, 23.4%), Somewhat uncomfortable (101, 21.9%), Neutral (150, 32.5%), Somewhat comfortable (46, 10.0%), Extremely comfortable (56, 12.1%). Regarding dental providers administering the COVID-19 vaccine the results were as follow: Extremely uncomfortable (142, 31.1%), Somewhat uncomfortable (96, 21.0%), Neutral (135, 29.5%), Somewhat comfortable (32, 7.0%), Extremely comfortable (52, 11.4%). Of those somewhat and extremely comfortable discussing the COVID-19 vaccine (91 responses), only 63 responded feeling comfortable with dentists administering the COVID-19 vaccine in their office. Caregiver COVID-19 vaccination status had a strong association with the child's vaccination status with 251 caregiver childhood pairs both receiving the vaccine and 42 pairs not receiving any COVID-19 vaccinations (P=.0001).

CONCLUSIONS

Based upon this study's results, the following conclusions can be made:

- Caregivers who had received the COVID-19 vaccination were more likely to vaccinate their children against COVID-19
- There was no significant association between knowing someone who got ill by COVID 19 with being worried that their child might get seriously ill by COVID 19.
- COVID-19 Vaccination acceptance rates were higher for children aged 12-17 compared to those aged 5-11
- Caregivers who were comfortable discussing the COVID-19 vaccine with a dentist were also more likely to accept it from a dentist
- COVID 19 vaccination among caregivers was 17 times higher than vaccination rates for their children.

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