

Kūpuna “Older Adults” COVID-19 Vaccination Efforts in Hawai‘i: Barriers and Successes

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Abstract

Prior to the availability of vaccines, kūpuna (older adults) accounted for the majority of COVID-19 hospitalizations and deaths. Hawai‘i’s phased vaccine-release plan prioritized kūpuna, but it did not include guidance or strategies for kūpuna to get to mass vaccination sites, for those residing in care and foster homes, or for the homebound. This paper presents findings from statewide efforts to facilitate a quick uptake of vaccines among kūpuna of all ability levels. Researchers interviewed 32 individuals involved in kūpuna vaccination efforts from state and county government agencies, health care organizations, and non-profit organizations. Data on the percentage of kūpuna that initiated and completed the vaccination series by age group and island were obtained from the Hawai‘i State Department of Health COVID-19 Dashboard. Overall, kūpuna vaccination efforts across the state were successful. By July 30, 2021, 94% of adults age 65+ were vaccinated, although prevalence varied by county—from 88% on Maui to 98% on Kaua‘i. Key barriers included cumbersome online systems for scheduling vaccination appointments, difficulties for some elders in accessing mass vaccination sites, and the need for education and consent forms in multiple languages. Successful strategies included funding coalitions for effective partnerships, establishing county- and language-specific call centers, and supporting translation/interpretation services, mobile and pop-up clinics, and mechanisms for in-home vaccinations. Hawai‘i worked hard to facilitate the quick uptake of COVID-19 vaccines among older adults. Funding for coalitions that could identify gaps, coordinate expertise across public and private sectors, and advocate for elders were crucial elements of the state’s success.

Keywords

Kūpuna, Older Adults, COVID-19, Vaccinations, Coalitions

Abbreviations and Acronyms

DOH = Hawai‘i Department of Health
EAD = Elderly Affairs Division of the City and County of Honolulu
EOA = Hawai‘i State Executive Office on Aging
KAEA = Kaua‘i Agency for Elderly Affairs
KVOG = Kūpuna Vaccination Outreach Group

Introduction

COVID-19 cases were first recorded in Hawai‘i in early March 2020.¹ Although people of all ages contracted COVID-19 in 2020, kūpuna (older adults) were the most severely affected and accounted for most of the early COVID-19 hospitalizations and deaths.² In 2020, 19% of Hawai‘i’s population was over the age of 65³ in comparison to the United States (US) national average of 17%;⁴ yet 78% of deaths in the state⁵ and 75% of COVID-19 deaths nationally⁶ were among those over the age of 65. Kūpuna for the context of this paper is defined flexibly as

an older adult with multiple chronic conditions that puts them at risk for COVID-19 complications. The state of Hawai‘i’s COVID-19 response addressed this population through a strategic roll out of the vaccine based on age.

As part of a national effort, all states were tasked by the federal government with creating a COVID-19 Vaccination Plan by October 16, 2020.⁷ The initial supply of vaccines were limited nationwide,⁸ which led the State of Hawai‘i’s COVID-19 Vaccination Plan to call for a phased vaccine release (**Figure 1**) based on recommendations from the Centers for Disease Control and Prevention (CDC).⁹ Phase 1A was launched in late December 2020 for first responders, health care workers, and kūpuna in nursing homes.^{10,11} Phase 1B opened vaccinations to those 75 years and older and essential frontline workers at mass vaccination sites. In March 2020, Phase 1C opened vaccinations to those 65 years and older, those 16 years of age and older with a high-risk medical condition, and more essential workers.¹² Phase 2 for those 16 years and older began in April 2021.

With the introduction of mass vaccination sites in January 2021, kūpuna stakeholders from the Hawai‘i State Executive Office on Aging (EOA), the Elderly Affairs Division of the City and County of Honolulu (EAD), and AARP Hawai‘i issued a “Joint Letter of Recommendations for Those 75 Years and Older” that provided insights on the complex barriers kūpuna may encounter when visiting mass vaccination sites. Together they founded a multi-sectoral coalition called the Kūpuna Vaccination Outreach Group (KVOG) to meet the diverse vaccination needs of kūpuna and caregivers across the state. KVOG focused on O‘ahu, where the majority of kūpuna in Hawai‘i reside. The 3 other counties also created structures and coalitions to manage vaccination efforts in their communities.

In May 2021, the EOA contracted with the University of Hawai‘i at Mānoa (UH) Office of Public Health Studies to identify barriers and successes of the kūpuna COVID-19 vaccination response. Kūpuna vaccination efforts were highly successful based on the number of kūpuna that were vaccinated. The collective work of state, county, provider, and community-based organizations resulted in a 94% vaccination rate for older adults across the state by August 2021 (**Figure 2**).¹³ The purpose of this paper is to present findings from the evaluation of kūpuna vaccination barriers and successes and to outline lessons that can inform vaccination distribution efforts in future pandemics.

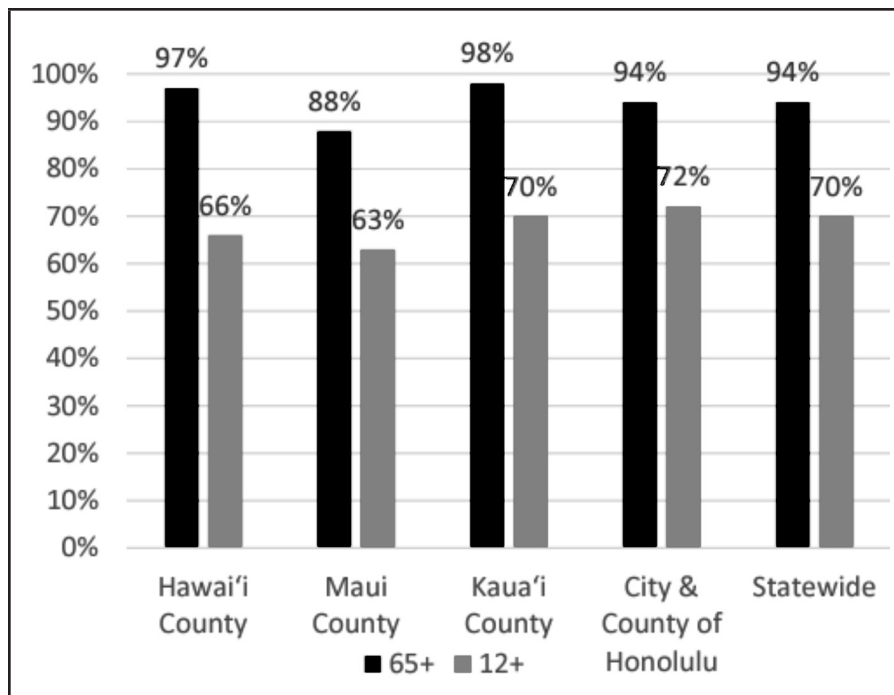
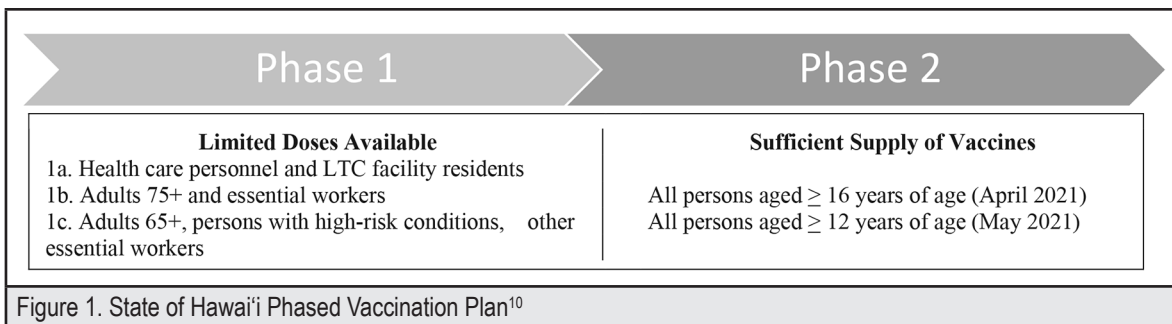


Figure 2. Hawai'i COVID-19 Vaccination Rates By Age Group and County, as of July 30, 2021^a
^a Percentage of Hawai'i residents that completed a two-vaccine COVID-19 series by age group and county in the State of Hawai'i as of July 30, 2021. Source: Hawai'i Department of Health. Vaccine Summary. https://health.hawaii.gov/coronavirusdisease2019/tableau_dashboard/21778/

Methodology

A qualitative design was used to collect information on *kūpuna* vaccination efforts. Specifically, the research team interviewed 32 key informants involved in *kūpuna* vaccination efforts from state and county government agencies, healthcare organizations, and non-profit organizations (Table 1). Key informants were recruited on O'ahu during a weekly KVOG meeting. Participants who agreed to be interviewed were then asked at the end of each interview whether they had any one else they would recommend to be interviewed. On O'ahu 21 interviews were conducted with representatives from the Hawai'i State Department of Human Services, the Hawai'i State Department of Health (DOH), the EOA, the Hawai'i State Office of Language Access, the City and County of Honolulu's EAD, 3 health care

provider organizations, and 7 community-based organizations and groups. On neighbor islands, participants were recruited through the DOH and EOA Area Agencies on Aging. Neighbor island participants from community non-profits and health care were identified through snowball recruitment. Eleven neighbor island interviews were conducted with representatives from the 3 District Health Offices, 3 Area Agencies on Aging, ALU LIKE, Inc. (Maui), and Community First Hawai'i (Hawai'i Island).

The interview schedules varied slightly across sectors to accommodate for greater specificity. Generally, interview guides included questions about the organizations' experience with COVID-19, the impact of COVID-19 on *kūpuna* and other vulnerable groups in their communities, vaccination barriers, success stories, and data sources. The structured interview

Table 1. COVID-19 Kūpuna Vaccination Efforts Key Informants
<p>Hawai'i State Department of Health (DOH)</p> <ul style="list-style-type: none"> • Dr. Janet Berreman, MD, MPH, Kaua'i District Health Officer • Gloria Fernandez, DNP, RN, PHNA-BC, Public Health Nursing Branch • Eric Honda, Acting Hawai'i County District Health Officer • Chris "CJ" Johnson, Physical Activity Program Specialist, Chronic Disease Prevention Department • Bridget Velasco, Health Educator, Maui District Health Office • Dr. Lorrin W. Pang, MD, MPH, Maui District Health Officer • Jon Shear, Ready Zone HQ, CEO - Consultant with HDOH • Caroline Cadirao, Director, Hawai'i State Executive Office on Aging • Aphirak "AP" Bamrungruan, Hawai'i State Office of Language Access, Executive Director
<p>Hawai'i State Department of Human Services (DHS)</p> <ul style="list-style-type: none"> • Curtis Toma, MD, Med-Quest Division (MQD)
<p>Hawai'i State Executive Office on Aging and the Area Agencies on Aging</p> <ul style="list-style-type: none"> • Derrick Ariyoshi, Elderly Affairs Division of the City and County of Honolulu • Horace Farr, Hawai'i County Executive on Aging • Kalani Holokai, Secretary, Maui District Health Office • Emily Ishida, Program Specialist, Kaua'i Agency on Elderly Affairs • Deborah Stone-Walls, Maui County Executive on Aging • Kealoha Takahashi, Kaua'i County Executive on Aging
<p>AARP Hawai'i</p> <ul style="list-style-type: none"> • Keali'ialanikulani S Lopez, State Director • Audrey Suga-Nakagawa, Associate State Director for Advocacy • Craig Gima, Associate State Director for Communications
<p>Healthcare Providers & Associations</p> <ul style="list-style-type: none"> • Melissa Ah Ho-Mauga, Vice President of Client Services, St. Francis Healthcare System • Mae Lynne Swoboda, Clinical Administration Manager for Prevention and Health Education, Kaiser Permanente • Stacy Wong, Senior Manager, Communications, Healthcare Association of Hawai'i
<p>Other non-profit, non-governmental associations</p> <ul style="list-style-type: none"> • Kim Ku'ulei Birnie, Papa Ola Lōkahi and Communications Officer, Native Hawaiian & Pacific Islander Hawai'i COVID-19 Response, Recovery & Resiliency Team, Papa Ola Lōkahi • Ka'ili Christophersen, Maui representative, Kumu Kahi Elderly Services, ALU LIKE, Inc. • Susie Chun Oakland, Director, Lanakila Multi-Purpose Senior Center • May Rose Dela Cruz, Co-Chair, FilCom CARES • Lindsey Ilagan, Kūpuna Program Manager, Hawai'i Public Health Institute • Randy Kurohara, Executive Director, Community First Hawai'i • Jennifer Pecher, Community Impact Director, Aloha United Way 211 • Leslie Tanoue, Director, Kumu Kahi Elderly Services, ALU LIKE, Inc. • Terrina Wong, Director of Social and Immigration Services, Pacific Gateway Center • Kathy Wyatt, Founder & President of Hale Hau'oli Hawai'i Adult Day Care

guide was provided to interviewees prior to their scheduled interviews. Transcriptions were created using the Zoom on-line platform (Zoom Video Communications, Inc., San Jose, CA), and interviews were recorded with participant consent. Data was collected by 2 researchers from the University of Hawai'i Thompson School of Social Work and Public Health as part of an evaluation of the Hawai'i statewide COVID-19 vaccination efforts. All participants agreed to be interviewed and, using a qualitative research method known as "member checking," relevant portions of the interview summaries were shared with interviewees prior to report writing to clarify and extend the findings. Additionally, they were provided with this manuscript to review and approve, and they agreed to have their names published as part of this work.

Data were analyzed by the 2 researchers using Microsoft Office Professional Plus 2019 (Microsoft Corporation, Redmond, WA). Transcripts were reviewed and themes were identified to create summaries of vaccination efforts at the state and county

levels and to distill key barriers and successful strategies to increase *kūpuna* vaccine access. The report was provided to all key informants and is available online,¹¹ and findings were presented to KVOG members in December 2021.

Results

Barriers to *Kūpuna* Vaccination

Three key barriers to vaccinating *kūpuna* were identified through interviews with key informants. They included: (1) cumbersome systems for vaccination scheduling; (2) the rapid need for interpreters and translated health education materials and consent forms in multiple languages; and (3) difficulties posed by reliance on mass vaccination sites for *kūpuna*.

First, to schedule COVID-19 vaccinations, many vaccination providers required registration through cumbersome online systems such as the Vaccine Administration Management

System (VAMS) or their own proprietary registration portals. This proved to be a barrier for many *kūpuna*, including those without computers or smartphones, email addresses, and/or sufficient internet connectivity. *Kūpuna* unfamiliar with online scheduling systems and those with limited English proficiency also experienced barriers. While elders could often get assistance from family members to access and schedule appointments, some others could not.

Second, Hawai‘i is racially diverse. The language diversity in Hawai‘i necessitated the rapid development of translated health education materials and the employment of interpreters at vaccination sites. Respondents emphasized that the need for translation and interpretation services was a significant barrier that had to be addressed rapidly to distribute vaccination effectively and equitably.

Third, mass vaccination sites were initially used as an efficient way to distribute the limited supply of available vaccines, to ensure proper vaccine storage conditions, and to assure standardized registration, vaccination, and observation protocols. Respondents stated that mass vaccination sites worked well for computer-savvy, physically able, and independently mobile older adults or older, less-able adults whose family members could help them navigate the registration process and transport them to mass sites. However, respondents found that many older adults could not schedule appointments or could not get to mass vaccination sites due to frailty, cognitive impairment, and lack of transportation or assistance. Other mass vaccination concerns included crowding, potential for exposure, the potential lack of bathrooms or places to sit if the wait was long, and lack of trust in mass vaccine sites.

Key Success Strategies in Overcoming Barriers

Key informants identified 5 strategies that were successful in overcoming the barriers to COVID-19 vaccinations for *kūpuna*. These included: (1) multi-sector coalitions and advocacy efforts; (2) county- and language-specific call centers; (3) interpretation and translation services; (4) bringing vaccinations to *kūpuna* through community and mobile pop-up clinics in locations where *kūpuna* reside and congregate, and through in-home vaccinations; and (5) community collaborations.

Coalitions

First, a number of well-functioning coalitions were developed at state, county, and organizational levels with the goal of providing accurate education on COVID-19 and vaccines, as well as equitable and timely distribution of vaccines to as many *kūpuna* as possible. These coalitions harnessed the energies of leaders, planners, providers, communicators, community-based groups, and others to come together to address barriers and advocate with and on behalf of *kūpuna* and caregivers.

Although not a comprehensive list, several coalitions and offices that were identified as significantly having impacted the delivery of vaccinations to *kūpuna* included KVOG, FilCom CARES, the Native Hawaiian & Pacific Islander Hawai‘i COVID-19 Response, Recovery & Resilience Team, the DOH Community Outreach and Public Health Education group, the County Emergency Operations Center on Kaua‘i, the District Health Offices in Maui County and Hawai‘i County, and Community First Hawai‘i on Hawai‘i Island. The success of these coalitions varied, but in general they advocated for and vaccinated vulnerable groups, coordinated multi-sector solutions to barriers, and engendered comradery in a rapidly changing and challenging health crisis. They also supported call centers, increased education and data collection within disproportionately affected populations, and helped build trust in the public health system among historically minoritized communities.

KVOG, for example, worked at the state level by advocating for earlier-than-scheduled vaccinations for residents and staff of Adult Residential Care Homes, Community Care Foster Faculty Homes, and Developmental Disability Domiciliary Homes, as well as the prioritization of these facilities for personal protective equipment and the development of infection control and vaccination protocols. Within the City and County of Honolulu, KVOG members supported call centers, education, transportation to vaccination sites, vaccination clinics in senior public housing, community-based pop-up and mobile clinics, and in-home vaccination mechanisms for homebound elders.

Call Centers

Second, to support *kūpuna* who had technological and language barriers to vaccinations, county-specific and language-specific call centers with translation and interpretation services were funded and implemented. For example, on O‘ahu the EAD funded Aloha United Way 2-1-1 to operate a *kūpuna* call center that could assist callers in 200+ languages. *Kūpuna* that needed help with scheduling and transportation were referred to St. Francis Healthcare System, which supported *kūpuna* by scheduling vaccination appointments, providing appointment reminders, arranging transportation services, and making follow up wellness calls.

On Kaua‘i, the Kaua‘i Agency for Elderly Affairs (KAEA) became the COVID information and vaccination call center for everyone age 60+ in the County. For mobile elders, KAEA made vaccination appointments and followed up to assure *kūpuna* were supported in receiving their shots. Homebound *kūpuna* were supported by referrals made by KAEA to Kaua‘i Public Health Nurses, who provided in-home vaccinations.

Translation and Interpretation

Third, the inclusion of translation and interpretation services was vitally important for Hawai‘i’s richly diverse population.

For example, the Hawai'i State Office of Language Access and Pacific Gateway Center, a community-based organization, collaborated to organize translation and on-site interpretation services for a number of vaccination events and initiatives. Interpreters conducted outreach and education as well as interpretation for vaccine administrators. In low-income, senior housing facilities, interpreters went door-to-door to personally invite non-English-speaking residents to attend vaccination drives. The presence of these interpreters was critical to engaging non-English-speaking kupuna and overcoming barriers that threatened vaccine access. Federally Qualified Health Centers and many other community-based organizations employed bilingual staff that assisted in the *kūpuna* vaccination efforts as well.

Taking Vaccinations to the Community

Fourth, to overcome barriers at mass vaccination sites, community leaders in each county took vaccination services to *kūpuna* where they were. For example, the Hawai'i Public Health Institute (HIPHI) through funding support from EAD organized onsite vaccination clinics for 29 senior housing properties, assisted by pharmacy providers, volunteers, and personnel from HIPHI, Honolulu's EAD, Catholic Charities Hawai'i, St. Francis, the Hawai'i State Office of Language Access, Pacific Gateway Center, and other groups. For 10 more properties, residents were aided to a nearby vaccination site, with Catholic Charities Hawai'i and St. Francis assisting with transportation and escort. Also, Public Health Nurses administered vaccines in public housing sites that were not exclusive to *kūpuna*, but where many residents were *kūpuna* nonetheless. They helped arrange on-site interpreters, translated and distributed large-print materials, and provided vaccine education.

For the 10 000 or more residents across more than 1900 licensed Adult Residential Care Homes and Community Care Foster Family Homes in the state, representatives from the Department of Human Services Med-QUEST Division took the lead on dividing the list into geographic regions of responsibility. On O'ahu, pharmacy staff from Times Pharmacy, Pharmacare, 5-Minute Pharmacy, Foodland Pharmacy, the Queen's Physician's Office Building Pharmacy, ElixRx, and others traveled to these group homes to vaccinate residents and staff. KTA Super Stores Pharmacy led this effort on the Hawai'i Island, while the Kaua'i and Maui District Health Offices led efforts in their respective counties.

Partnering with Community

A fifth strategy was contracting and/or partnering with community-based organizations to reach minority groups, especially those who were historically and continue to be underserved by existing systems of care. An example was FilCom CARES, a community group organized in 2020 to address the significant impact of COVID-19 on Filipinos by offering COVID-19 outreach, testing, vaccination, and resources. Members of the

group worked with the Hawai'i DOH to translate COVID-19 information into conversational Tagalog and Ilocano. Materials were disseminated through FilCom Center's call center, Facebook page, a weekly radio program, and radio-thons. When the vaccine became widely available, organizers worked with Federally Qualified Health Centers, pharmacies, and other providers to host vaccination clinics at trusted places where Filipinos gather, including Catholic churches and the FilCom Center in Waipahu.

Discussion

Though the COVID-19 pandemic spread quickly, necessitating the rapid deployment of vaccines, many *kūpuna* experienced barriers to vaccine access. For example, national studies estimated that half of older adults lacked internet access at home and needed assistance with using technological devices to schedule vaccination appointments.¹⁴ Mass vaccination sites across the country experienced long wait times and were burdensome for older adults with limited mobility and lack of support. Lessons learned from Hawai'i's vaccination strategy should be considered and adopted for future pandemic planning.

Recommendations

Based on thematic findings from key informant interviews, the research team proposed three recommendations for reaching *kūpuna* and other disproportionately affected groups in future pandemics: (1) engage all levels of stakeholders in pandemic response efforts from the beginning; (2) prioritize early support for community-based vaccination along with mass services; and (3) incorporate and fund community coalition and organizations in response efforts.

More specifically, government-led emergency operation centers should work closely with leaders in the Med-QUEST Division, the Hawai'i Public Housing Authority, and leaders of the Hawai'i Aging Network to identify venues where older adults are living and congregating and support them to devise and carry-out vaccination efforts with these *kūpuna*. The Hawai'i Aging Network includes the EOA, the 4 county-based Area Agencies on Aging, and community-based organizations that provide direct services to *kūpuna*.

Although distributing vaccines through mass vaccination sites is an efficient strategy when faced with a limited supply of a vaccine that needs to be stored under extremely specific conditions, many *kūpuna* were not able to participate due to difficulties with the online scheduling system, frailty, cognitive impairment, fear, lack of transportation, and/or lack of culturally and linguistically appropriate and age-empowered support. Taking the vaccine to trusted, safe places where *kūpuna* live and congregate, including long term care facilities, care homes, foster homes, domiciliary homes, senior housing properties, adult day care and senior centers, community clinics, places of

worship, homes, and so forth was a successful strategy. State- and county-level command centers should support efforts to organize vaccination of *kūpuna* at these sites.

Government-led emergency operation centers and Aging Network stakeholders should engage and fund community coalitions and organizations to increase the state's capacity to identify, engage with, and vaccinate elders. Community, non-profit, and private organizations can assist with call centers, education, and outreach to vulnerable communities, quickly create translated materials, provide interpretation services, and host community-based vaccination events for historically underserved groups. Coalitions can help to facilitate education and coordination across government, private, non-profit, and community-based organizations in vaccinating the public. Coalition members' multi-sector roles can assist with collaboration, reduce redundancies, and create a more resilient community. The early inclusion of community organizations and coalitions in planning efforts and funding opportunities is critical.

Finally, the inclusion of community groups in decision-making processes allows them to better advocate for their needs. For example, definitions of *kūpuna* vary across organizations and communities. *Kūpuna* are typically defined as those 65 years and older, although prevalent health disparities among certain ethnic groups and historically marginalized communities have led the US Older Americans Act to define older adults as those 60 years and older, while the Federally Qualified Health Centers define older adults as those 55 years and older.¹⁵ While the state's strategic plan prioritized *kūpuna* by age, it did not account for minority groups that experience chronic diseases at early ages. This perpetuated disproportionate disease burden and death among Native Hawaiians, Filipinos, and Pacific Islanders in Hawai'i.¹⁶

Limitations

The information in this report was limited by the short time-frame within which data were collected (June-August 2021), which limited the number of individuals interviewed. Additionally, the report only covers the Hawai'i State response to the COVID-19 pandemic but does not include an evaluation of the Federal response. Given the high population of military, military families, and military retirees in Hawai'i, this gap in knowledge is significant. The rapid spread of the COVID-19 pandemic necessitated an urgent move to collect and report on data which did not allow for the full inclusion of other coalitions, activist groups, and *kūpuna* who were leaders in the community themselves. Space limitations precluded the sharing of more accounts of challenges and successes in vaccinating older adults in this manuscript, but more information can be found in the online evaluation report.¹²

Conclusion

This report serves to document COVID-19 barriers to vaccination efforts with *kūpuna* and strategies that were successful in overcoming these barriers in Hawai'i. Findings should be useful in the event of another pandemic and for vaccination efforts for seasonal influenza, pneumonia, shingles, and other vaccines targeting older adults. Particularly important is meeting *kūpuna* where they are through multi-sector partnerships.

Conflict of Interest

None of the authors identified any conflicts of interest.

Acknowledgements

We thank everyone who worked to protect our *kūpuna* during the COVID-19 pandemic, both those mentioned here and those who we were not fortunate enough to speak to, including the caring family, friends and neighbors who worked to ensure that the *kūpuna* in their lives received the opportunity to get vaccinated.

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