

Examining Mental Health and Economic Consequences During the COVID-19 Pandemic Among Filipino Residents in Hawai'i: May – Oct 2020

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Abstract

The coronavirus disease 2019 (COVID-19) pandemic has resulted in rapid and drastic changes to daily lives, posing a threat to residents' mental health and well-being. Filipinos are disproportionately impacted by COVID-19 and have one of the highest COVID-19 prevalence in Hawai'i. The COVID-19 pandemic has been associated with a rise in mental health concerns, yet little is known about the impact on the mental health of Filipinos in Hawai'i. Using publicly available polling data from the SMS Community Pulse Survey, this study sought to describe the mental distress experienced by Filipino residents during the COVID-19 pandemic. Data were collected from an online panel of Hawai'i residents over 4 timepoints (May 5-10; June 11-17; July 31-August 8; October 19-31, 2020). Compared to non-Filipinos, a higher proportion of Filipinos reported feeling stress and sadness during 3 of the 4 timepoints. Across all timepoints, Filipinos were more likely to respond affirmatively to mental health indicators (62.5%). Similarly, Filipinos reported food insecurity in higher proportions relative to non-Filipinos in most timepoints, particularly notable in Timepoint 4 where 33.0% of Filipino respondents reported food insecurity. These findings suggest that Filipinos would benefit from social policy and community-supported initiatives to address social determinants of health, reduce chronic stress, and prevent further mental health disparities.

Introduction

The coronavirus disease 2019 (COVID-19) pandemic has resulted in rapid and drastic changes to daily lives. Many Hawai'i residents temporarily lost their jobs and were socially isolated due to the pandemic lockdowns. Lessons learned from previous public health emergencies show that a tendency towards fear, anxiety, and worry during emergencies is common.^{1,2} National and international data demonstrate associations between the COVID-19 pandemic and mental health concerns (eg, depression, stress, and anxiety).³⁻⁵ While one previous study has examined the COVID-19 pandemic and the Filipino community,⁶ there is a lack of literature that concentrates specifically on the mental health of Filipinos in Hawai'i and the socioeconomic consequences of the pandemic.

Filipinos are a significant part of the essential workforce in the US, including health care, food service, and retail industries,⁷ which put Filipinos at a higher risk of COVID-19 infection due to increased proximity to potentially infected individuals.⁸ Health care workers are especially at risk for COVID-19 infection; Filipino nurses constituted nearly one-third of COVID-19 deaths among US nurses in 2020.⁹ Filipinos are overrepresented

in the nursing workforce of Hawai'i and are more likely to work in settings where they will be at an increased risk of potential exposure while caring for a patient infected with COVID-19.¹⁰⁻¹²

Outside of health care, Filipinos make up a large proportion the tourism workforce in leisure, hospitality, and retail occupations in Hawai'i, which have been heavily impacted during the pandemic.¹² Large proportions of the tourism workers already earn very low wages, and the pandemic and subsequent lockdown further worsened the situation with business closures, which lead to high unemployment rates. Between April to July 2020, Filipinos represented the largest group who filed for unemployment in Hawai'i.¹² For many, the pandemic has exacerbated ongoing economic struggles that existed prior to COVID-19.

Filipinos bear a disproportionate burden of COVID-19 morbidity and mortality, nationally and in the state of Hawai'i.^{8,13} According to the Hawai'i State Department of Health,¹³ Filipinos account for 16% of the state population but 17% of cumulative COVID-19 cases, and 23% of COVID-19-associated deaths as of August 7, 2023, making Filipinos the most impacted ethnic group after Pacific Islanders. The disproportionate burden of COVID-19 among minority groups is a major concern as it highlights the health inequities, such as chronic disease burden, that persisted prior to the pandemic.¹⁴ Furthermore, the long-term effects of COVID-19 on individuals, families, and communities in the long-term are unknown.

As Filipinos in Hawai'i have been disproportionately impacted by the COVID-19 pandemic in terms of infections, deaths, and economic consequences, it is likely that their mental health and well-being may also be negatively affected.^{3,4,15} Therefore, addressing Filipino mental health during this pandemic is a high priority. Using publicly available data from the SMS Community Pulse Survey, the aim of this study is to describe the economic and mental health conditions experienced among Filipino adults in Hawai'i during the earlier timepoints of the COVID-19 pandemic (May – October 2020) in comparison to non-Filipino populations.

Conceptual Framework

This study is guided by a conceptual framework proposing that the increased economic uncertainty and employment uncertainty resulting from the COVID-19 pandemic causes psychological stress and different levels of mental health problems.¹⁶ **Table 1** specifies how the consequences of the pandemic relate to stress and mental health. Economic shutdowns and social distancing seek to decrease the spread of COVID-19; however, the unintended consequences of such measures may negatively affect mental health. Economic stability is an important factor in one's mental health and well-being.¹⁷ The massive economic consequences of the pandemic (eg, unemployment) lead to uncertainties and vulnerabilities that may elevate mental distress. Additionally, communities with a lack of adequate testing can lead to uncertainties about COVID-19 spread and susceptibility, and fears of COVID-19 infection can also play a major role in mental health.¹⁸ The impact of economic instability on mental health as a consequence of the pandemic may also be related to socio-demographic factors on a societal and individual level, including age, gender, ethnicity, and social culture.¹⁹

Methods

SMS Community Pulse Survey

Secondary data was utilized from the SMS Community Pulse Survey, a series of cross-sectional online surveys designed to study the views of Hawai'i residents toward the COVID-19 pandemic.¹⁹ Respondents were recruited from a panel sample across four timepoints in the year 2020: May 5-10, June 11-17, July 31-August 8, October 19-31. The sample sizes for each SMS Survey timepoint ranged from 401 to 407 (407, 401, 404, and 404 respectively). The panel of respondents was maintained to represent the overall distribution of Hawai'i residents. To account for variability in respondents by timepoint, respondents were weighted by age, gender, race/ethnicity, income, and residence to the state population based on the 2018 US Census data; weighting was performed by the SMS team using the raking method. The incidence rate (ie, the proportion of respondents from the panel that qualified for the current survey) ranged from 85-90%. Once approximately 400 individuals completed the survey, the timepoint was closed out.

Data are provided in aggregate form on a publicly available online dashboard.¹⁹ The dashboard allows the user to stratify the outcome variables by demographic variables such as age, sex, and gender.

Measures

The primary aim was to compare outcomes between Filipinos and those not categorized as Filipinos. Survey respondents selected their primary ethnicity as the category they most identified with (Chinese, Filipino, Hawaiian/Part-Hawaiian, Japanese, Mixed/ Others, White/Caucasian). Non-Hawaiian Pacific Islanders and mixed race/ethnicity respondents are captured in the "Mixed/ Other" category. **Table 2** lists the survey questions and selected response option indicators used for analysis. These survey questions and response option indicators were primarily selected due to their overlap with the conceptual framework in describing aspects of or affecting mental distress and economic/employment uncertainty.¹⁶ All other SMS Community Pulse survey questions and response options were not used for analysis.

Analyses

Integrating publicly available information derived from the Hawai'i Department of Health News Releases²⁰ and Department of Defense²¹ websites, a timeline was generated of both federal and state-level policy responses over the course of our study period; specific policies were selected for their perceived coverage and qualitative relevance to the aims of the study. Using data from March to October 2020 on newly diagnosed COVID-19 cases in Hawai'i compiled by The COVID Tracking Project,²² an organization from The Atlantic that collects and publishes state-level data on COVID-19 in the US, the 7-day moving average of new COVID-19 cases (daily cases averaged over a 7-day period) was calculated to generate a case epidemic curve. Similarly, a curve visualizing the weekly requests for unemployment payments, whether or not benefits were actually paid, was overlaid to provide further contextual information on the overall financial situation across all Hawai'i residents during the early months of the COVID-19 pandemic; these publicly available data were obtained from the Hawai'i Department of Labor and Industrial Relations.²³ To illustrate differences in indicator endorsement among Filipinos over time, the proportions of the survey indicator responses for Filipinos and non-Filipinos across each survey timepoint were sliced from the SMS Community Pulse online dashboard; these data were descriptively overlaid with the state-level COVID-19 epidemic curve and weekly unemployment payments request to provide contextual insights to the observed changes and differences. All other survey indicators of interest were similarly summarized by weekly average of cases and unemployment claims between the end of each survey timepoint. All analyses were descriptive in nature, utilizing the weighted percentages as presented on the SMS Community Pulse online dashboard, and the data was organized using Microsoft Excel version 2308 (Microsoft Corporation).

Table 1. Conceptual Framework of How COVID-19 Impacts Mental Health (adapted from Lu & Lin, 2021)			
Determinants	Mechanism	Mental Health Outcomes	Boundary Conditions
<p>COVID-19 pandemic</p> <p>Prevention and intervention measures (eg, lockdown, quarantine, self-isolation)</p>	<p>Economic Uncertainty</p> <ul style="list-style-type: none"> Income uncertainty Financial difficulties Economic pressure Economic worries Food security worries <p>Employment Uncertainty</p> <ul style="list-style-type: none"> Employment difficulties Involuntary underemployment Involuntary unemployment Job instability or insecurity Inability to work 	<ul style="list-style-type: none"> Mental distress (depression, anxiety, pressure) Fear Hopelessness/Despair Loneliness Xenophobia 	<p>Social Context</p> <ul style="list-style-type: none"> Economic development Social culture Economic intervention policy Duration <p>Individual Context</p> <ul style="list-style-type: none"> Demographic characteristic Personality

Table 2. SMS Community Pulse Survey Indicators		
Category	Survey Question	Selected Indicator Response Option
Economic & Employment Uncertainty	What is your employment situation now?	Been permanently let go / temporarily laid off
	Which of the following statements best describe your household's current financial situation?	Running into debt ("Yes")
	To what extent has your own life been affected or disrupted by the coronavirus situation?	A great deal
	Did you experience any of the following feelings in the past few days?	Worried about having enough food for my family ("Yes")
Mental Health	What is your impression of the coronavirus situation today?	Still getting worse
	How worried are you that you or someone in your family will get sick from COVID-19?	Very Worried
	Did you experience any of the following feelings in the past few days?	Happiness ("No") Enjoyment ("No") Sadness ("Yes") Worried in general ("Yes") Stress ("Yes") Fear ("Yes") Worried in general ("Yes")

Results

Figure 1 illustrates the 7-day moving average COVID-19 case count and weekly unemployment claims in Hawai‘i, along with the state and federal policies that were implemented during the pandemic, from March 2020-October 2020. There was a 23-fold increase in unemployment claims from March to May 2020 (Timepoint 1), which then plateaued before decreasing in September 2020; by the end of the study period (October 31, 2020), weekly unemployment claims remained nearly 10 times greater than at the beginning of March 2020. A notable surge in COVID-19 cases was observed from July to August 2020 (Timepoint 3), from an average of 18 cases per day for the first week of July to 248 cases per day by the end of August. By the end of September 2020, the average number of COVID-19 cases appeared to drop down to approximately 100 per day, then dropped to an average of 66 cases per day during the final week of Timepoint 4.

Table 3 shows the percentage points for affirmative responses to each mental health indicator by Filipinos and non-Filipino ethnicities. **Table 3** also include arrow icons to visualize the direction and magnitude of the percent difference between Filipino and non-Filipino respondents. One arrow indicates at least a 10% difference between the two groups, and two arrows indicate at least a 20%. The arrow(s) point towards the group with the larger percentage. Notably for most indicators (65% overall across all timepoints) there was a greater percentage of Filipinos who responded affirmatively, with 33% of indicators with at least a 10% difference. This was particularly notable during Timepoint 4 (80% of indicators).

Economic and Employment Uncertainty

A higher proportion of Filipino respondents reported being temporarily or permanently unemployed than non-Filipino respondents at Timepoint 3 (23.9% greater) and Timepoint 4

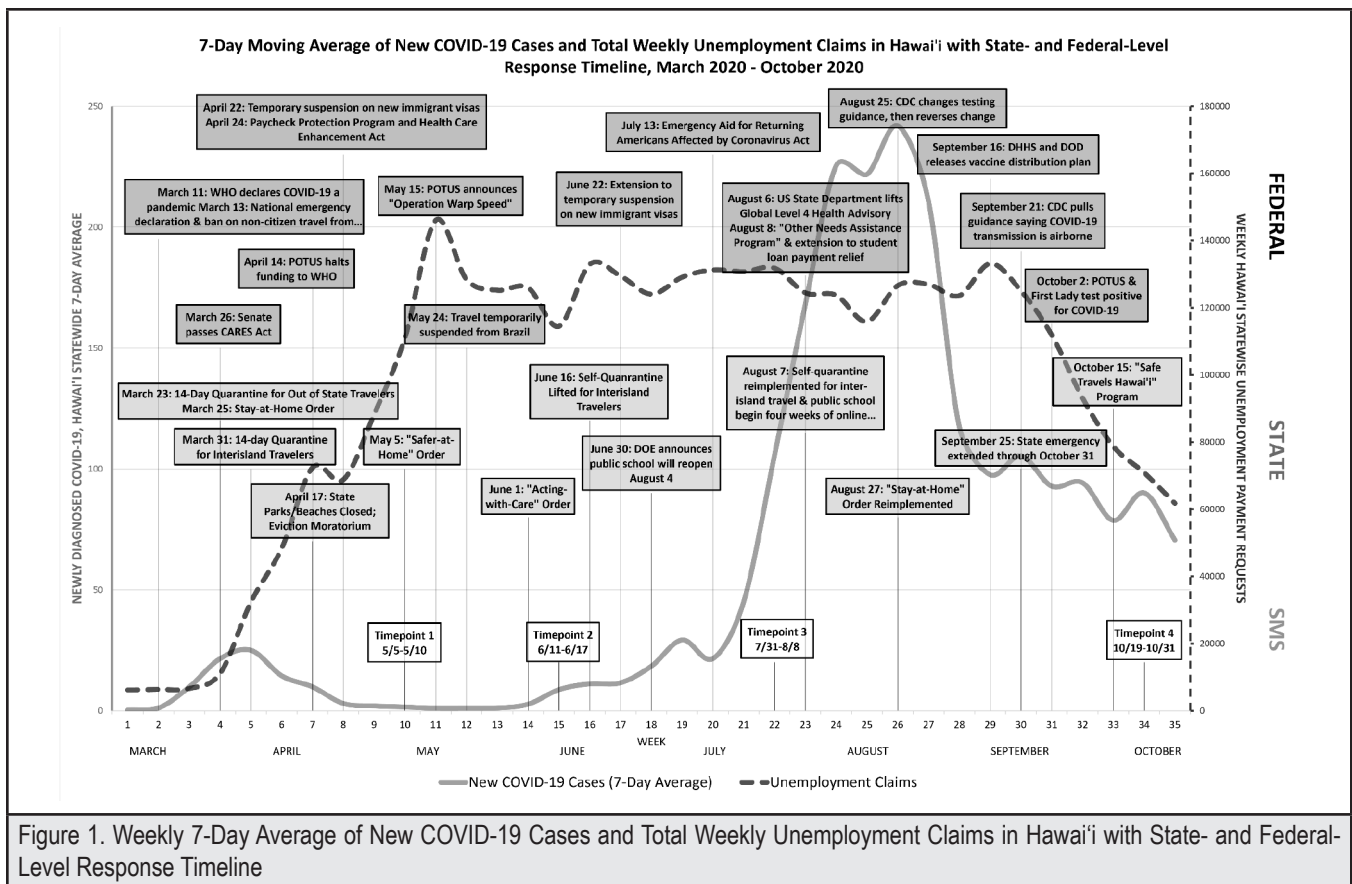


Figure 1. Weekly 7-Day Average of New COVID-19 Cases and Total Weekly Unemployment Claims in Hawai'i with State- and Federal-Level Response Timeline

(10.5% greater). Additionally, more Filipino respondents reported that they were running into debt throughout the observed timepoints, ranging from 9.0% to 17.14% higher compared to non-Filipinos; this was highest at Timepoint 4, where 30.0% of Filipino respondents reported running into debt. Furthermore, at all timepoints except Timepoint 2, a considerably higher proportion of Filipino respondents (>10% higher) reported worry of being able to provide enough food for their family, with an increasing trend during the observation period (Figure 2). A third of Filipino reported worry about food insecurity at Timepoint 4 compared to all other respondents (18.7%). When asked whether COVID-19 has affected or disrupted their lives, more Filipino respondents reported that their lives were affected or disrupted “a great deal” (44.2%) by the COVID-19 pandemic relative to all other respondents (24.1%) at Timepoint 1. However, this observation was not consistent across timepoints.

Mental Health

Throughout the observation period, a higher proportion of Filipino respondents reported experiencing stress, ranging from 9.5-24.2% higher than non-Filipinos except at Timepoint 3 (20.9% higher among non-Filipino respondents) (Figure 3). By Timepoint 4, nearly three-quarters (74.0%) of Filipino respondents reported experiencing stress, which was consider-

ably higher than other ethnic groups (49.8%). Also, the highest proportion of both Filipino and non-Filipino respondents’ having a negative perception of the pandemic situation (“still getting worse”) was observed during Timepoint 3 (80.0% and 81.5%, respectively), which coincided with the rising cases of COVID-19 during that time. While fewer Filipino than non-Filipino respondents reported feeling very worried about themselves or their family getting sick from COVID-19 at most timepoints, the proportion appeared to increase throughout the observed time period from 28.6% at Timepoint 1 to 39.6% at Timepoint 4. Similar to non-Filipinos, most Filipino respondents reported feeling worried in general throughout the observation period; this observation was highest during Timepoints 1 and 4 (64.5% and 60.0%, respectively), which coincided with increasing reports of COVID-19 cases at the time (Figure 1). The proportion of Filipino respondents reported feeling fear during the pandemic was similar to non-Filipinos and across the four timepoints (approximately 20%). Figure 4 illustrates how responses from Filipino respondents to the sadness indicator compared to non-Filipino respondents. More than one-half (52.3%) of Filipino respondents reported feeling sad at Timepoint 1, which was considerably higher than other ethnic groups (24.2%). The proportion of Filipino respondents reporting feelings of sadness was lower when the number of COVID-19 cases appeared to plateau but was higher at Timepoint 4, when the state was

experiencing a large surge of COVID-19 cases (**Figure 4**). Additionally, most Filipino respondents reported that they had not felt happiness or enjoyment in the past few days at each

timepoint, with the largest proportion of Filipino respondents not feeling happiness (64.6%) observed at Timepoint 3 and not feeling enjoyment (75.1%) at Timepoint 4 (**Table 3**).

Table 3. Indicators of Economic/Employment Uncertainty and Mental Distress by Primary Ethnicity with the Direction and Magnitude of the Percent Difference Between Filipinos' and non-Filipinos' Affirmative Responses as Indicated by Arrows								
Indicator	Timepoint 1		Timepoint 2		Timepoint 3		Timepoint 4	
	05/05-05/10		06/11 - 06/17		07/31-08/08		10/19-10/31	
	Filipino	Non-Filipino	Filipino	Non-Filipino	Filipino	Non-Filipino	Filipino	Non-Filipino
The coronavirus situation in Hawaii is still getting worse	3.10%	7.90%	27.90%	31.90%	80.00%	81.50%	36.90%	28.10%
Very worried that I or someone in my family will get sick from COVID-19	28.60%	31.20%	20.80%	→ 32.50%	36.90%	44.90%	39.60%	35.40%
My own life has been affected or disrupted by the coronavirus situation a great deal	42.20%	← 24.10%	23.10%	→ 33.20%	17.20%	→ 29.30%	32.80%	24.70%
Experienced feeling worried in general in the past few days	64.50%	← 50.60%	47.00%	45.30%	52.20%	55.60%	60.00%	54.60%
Experienced feeling fear in the past few days	28.90%	19.00%	21.80%	17.80%	15.20%	26.50%	16.00%	21.00%
Experienced feeling stress in the past few days	59.80%	50.30%	62.90%	← 46.40%	33.80%	→ 54.70%	74.00%	↔ 49.80%
Did not experience happiness in the past few days	57.70%	→ 69.00%	48.50%	→ 60.80%	64.60%	56.30%	55.70%	57.80%
Experienced feeling sadness in the past few days	52.30%	↔ 24.20%	38.20%	← 23.50%	18.90%	→ 32.70%	44.30%	← 32.20%
Experienced feeling anger in the past few days	45.90%	↔ 19.00%	32.30%	← 21.40%	25.00%	26.30%	27.20%	22.30%
Experienced feeling loneliness in the past few days	42.90%	← 25.70%	24.90%	21.50%	28.00%	21.90%	26.00%	29.00%
Experienced feeling helplessness in the past few days	48.20%	↔ 24.50%	17.20%	21.90%	24.30%	21.80%	34.50%	27.70%
Did not experience enjoyment in the past few days	69.90%	76.00%	65.83%	61.20%	44.60%	→ 58.50%	75.10%	← 56.60%
Experienced feeling worried about having enough food for my family in the past few days	28.10%	← 16.90%	11.31%	10.30%	29.80%	← 12.30%	33.00%	← 18.70%
My household's current financial situation is best described as running into debt	24.20%	← 9.80%	20.35%	← 9.70%	20.40%	11.30%	30.00%	← 12.90%
My current employment status is permanently or temporarily laid off	20.40%	20.20%	26.22%	20.90%	44.60%	↔ 20.70%	27.70%	← 17.20%
Average Weekly New Cases Between Survey Phases (SD)[†]	64.2 (66.1)		19.4 (19.8)		346.6 (399.8)		972.5 (469.5)	
Average Weekly Unemployment Claims Between Survey Phases (SD)[†]	45,153 (38,528)		128,032 (11,431)		129,243 (3,308)		107,618 (24,848)	

Arrows point towards group with a higher percentage

One arrow indicates at least a 10% difference between Filipino and Non-Filipino groups

Two arrows indicate at least a 20% difference between Filipino and Non-Filipino groups

[†] Weekly average over the following periods: Phase 1: 03/01-05/10, Phase 2: 05/11-06/17, Phase 3: 06/18-08/08, Phase 4: 08/09-10/31

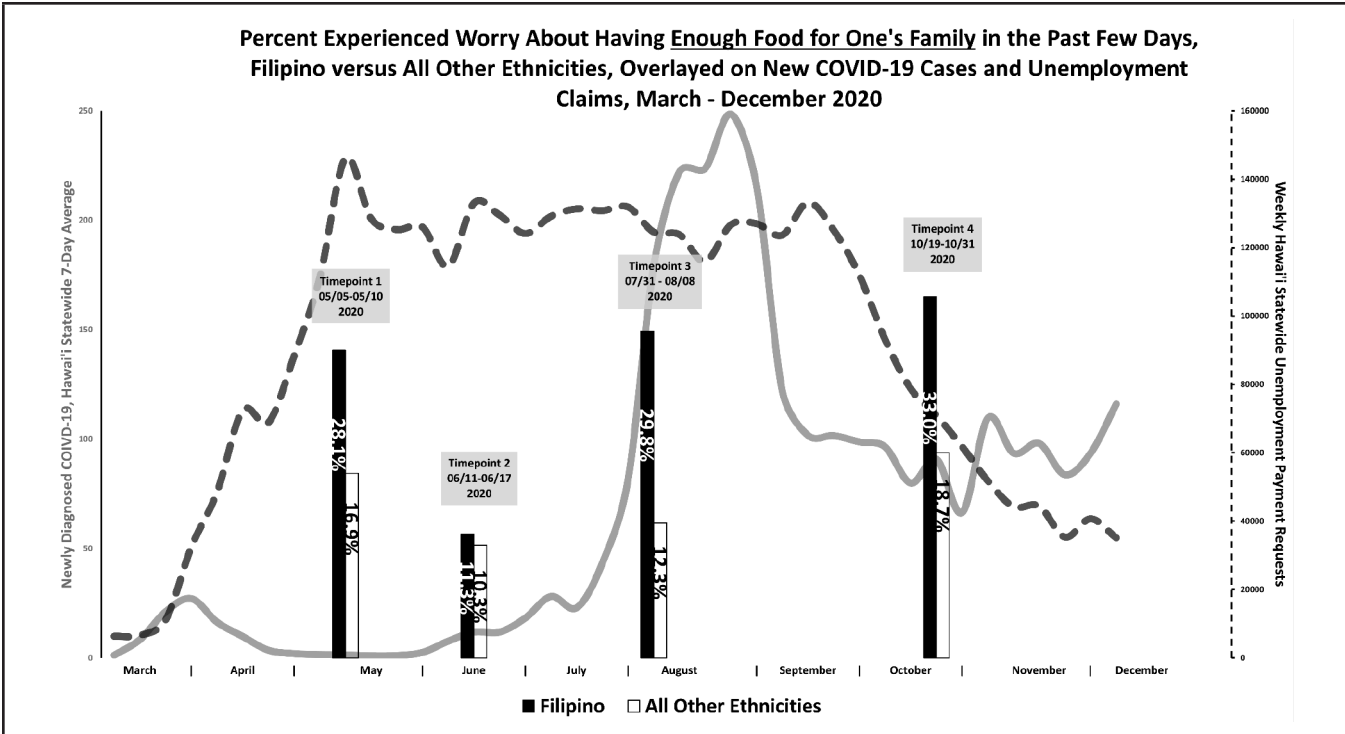


Figure 2. Socioeconomic Hardship and Life Disruption Indicators by New COVID-19 Cases (left y-axis, solid line) and Unemployment Claims (right y-axis, dotted line) in Filipinos and All Other Ethnicities, March – October 2020

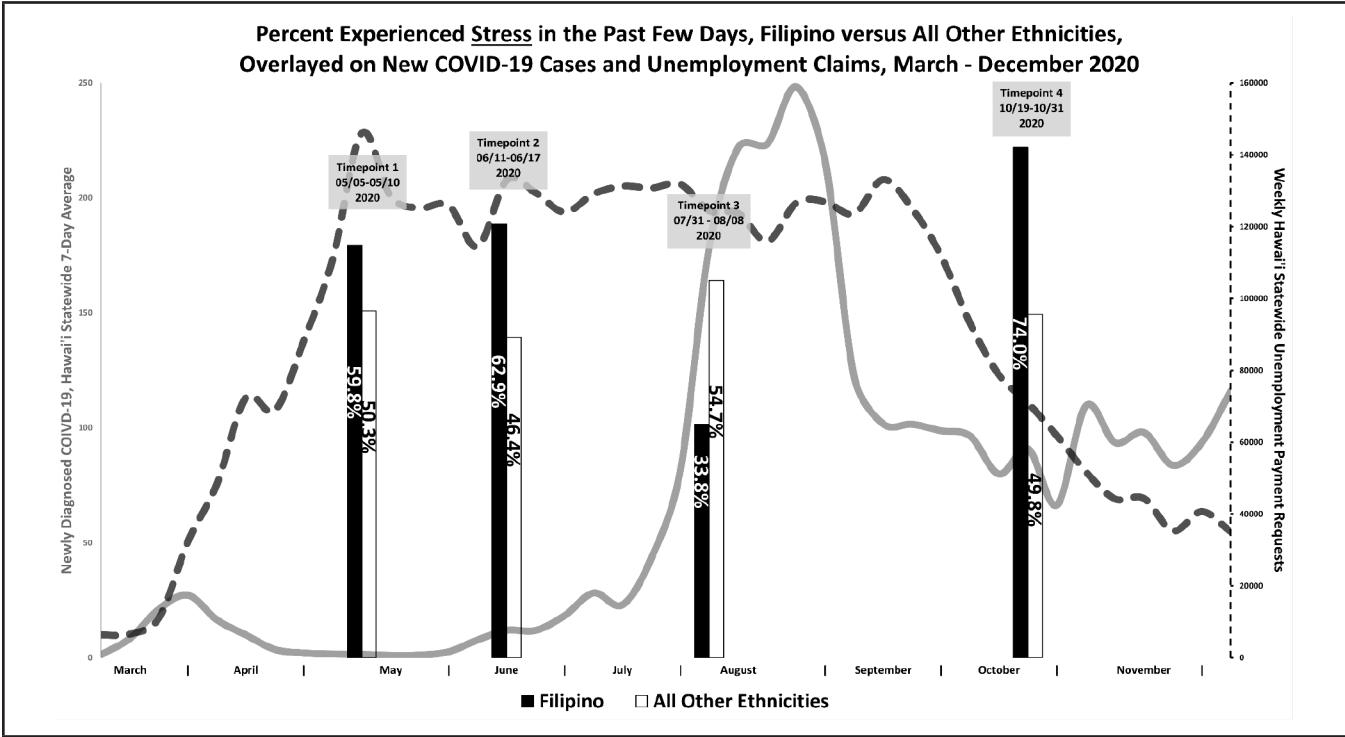


Figure 3. Stress Indicator by New COVID-19 Cases (left y-axis, solid line) and Unemployment Claims (right y-axis, dotted line) in Filipinos and All Other Ethnicities, March – October 2020

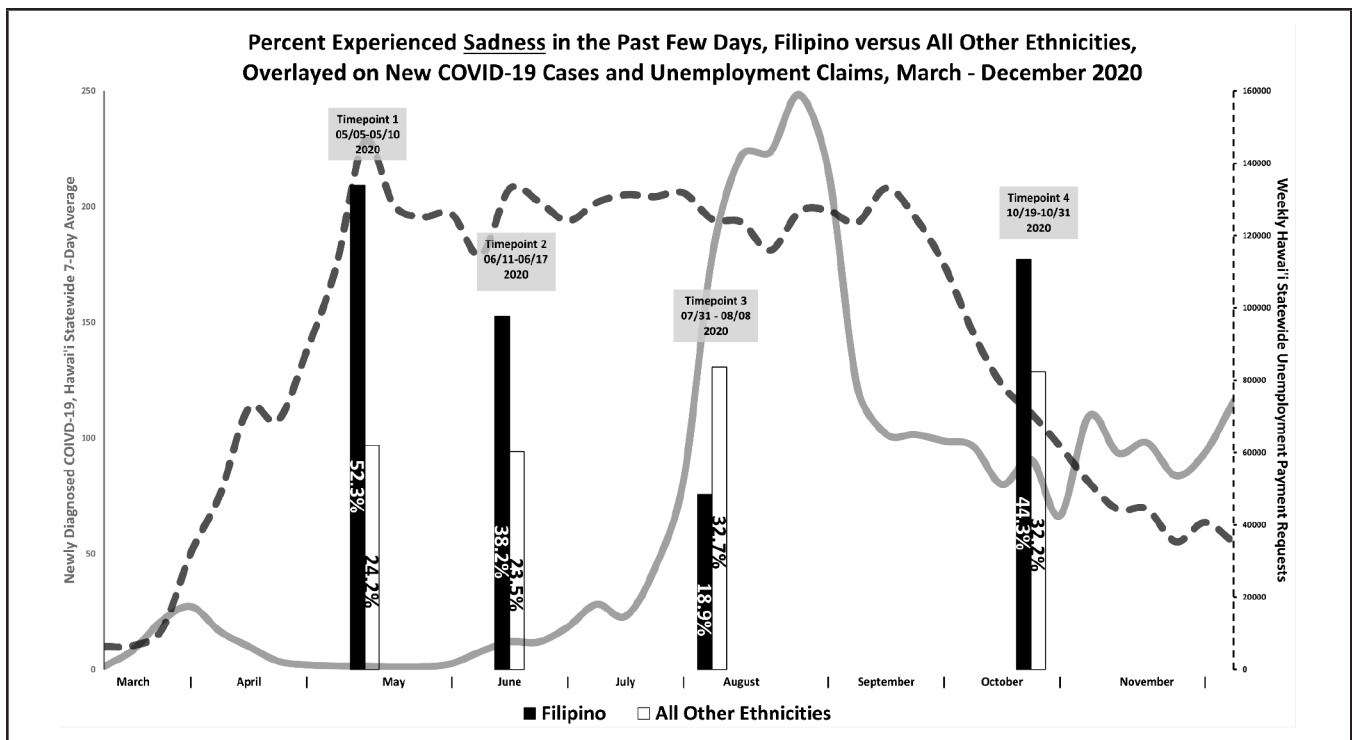


Figure 4. Sadness Indicator by New COVID-19 Cases (right y-axis, dotted line) and Unemployment Claims (right y-axis, dotted line) in Filipinos and All Other Ethnicities, March – October 2020

Discussion

The health and socioeconomic consequences of the pandemic have raised major concerns for mental health.^{3-5,15} With the stress from high costs of living in Hawai‘i exacerbated by the increase in COVID-19 cases and prolonged economic instability from the pandemic, we expected that the Filipino community would experience feelings of mental distress, which is suggested in our findings, in which many Filipino respondents reported feelings of sadness, stress, and worry, and economic uncertainty (eg, job loss, debt, and worry about food security).

Implications for Public Health Practice

COVID-19 highlights the importance of investing in social programs to protect mental health during economic downturns, especially for vulnerable populations.^{5,15,17} Strengthening the mental health infrastructure in our state through increased availability of translated materials and culturally-relevant services would improve Filipinos’ access to mental health services. Previous studies show that increasing availability of behavioral health services and expanding insurance coverage can potentially decrease racial and ethnic disparities in mental health outcomes.²⁴ Furthermore, additional research should be conducted into the mental health experiences of Filipinos related to the pandemic. The Filipino community is often aggregated under Asian Americans, and as a result, there is limited

information about mental health treatment for Filipinos.²⁵ To provide better mental health care to Filipinos, it is important to understand the cultural values and experiences of the Filipino community.

Within the Filipino community, mental health should be addressed with cultural appropriateness. Mental health issues are stigmatized in Filipino culture and many Filipinos conceal their emotions and endure their emotional sufferings.²⁶ This may be due to the belief that mental illness signifies a weak spirit, and the cultural value of social harmony (*pakikisama*). These cultural beliefs can thus prevent Filipinos from seeking mental health services.²⁷ However, Filipinos also have strong cultural values that can positively affect one’s mental health. For example, Filipinos have a strong sense of connectedness with their community (*kapwa*) and a sense of gratitude and doing good for the collective (*utang na loob*).²⁸ Adaptations of mental health services to incorporate Filipino cultural values, such as incorporating family or faith-based practices, may help to increase the acceptability of seeking mental health services.²⁹ Outreach initiatives and community partnerships with Filipino community leaders is crucial to building strong relationships with one’s culture, sharing information about coping strategies, normalizing discussions about mental health.^{28,30} For example, in light of the pandemic, the FilCom CARES project was mobilized to provide COVID-19 testing and vaccine services, along with COVID-19 education in Tagalog and Ilocano, to Filipino com-

munities by collaborating with churches and radio stations to increase awareness about such services.³¹ Initiatives like FilCom CARES provides an example of community collaboration and culturally-based services for the Filipino community.

This pandemic led to massive increases in unemployment claims, and unemployment often results in the loss in health insurance or enrollment in expensive COBRA coverage. Local partners and state agencies must improve and maintain care coordination to ensure that vulnerable communities, like Filipinos, can access health insurance and unemployment benefits. These navigation support efforts are especially important for those needing translated resources or interpretation assistance in Tagalog and Ilocano when applying for benefits. Social services, such as unemployment benefits or social welfare supports (eg, family support), have a protective effect on an individual's mental health,^{32,33} and the expansion of these programs appears to mitigate negative impacts of economic downturns on population mental health.¹⁷

For more sustainable impacts, social/public policy action is needed to mitigate socioeconomic downturns and the associated mental health consequences. For example, employment and health policies should be established to protect working individuals and families during public health and other emergencies. Employers should provide comprehensive paid sick or COVID-19 leave to provide essential workers the necessary resources to address health- and life-related stressors. Furthermore, economic policies that ensure a safety net for workers during an economic crisis, such as basic income security, can mitigate the consequences of sudden economic insecurity.^{34–37}

Limitations

This study utilized secondary cross-sectional aggregate data; without access to individual-level longitudinal data, thus the current study was unable to conduct inferential analyses between survey timepoints, nor quantitatively link unemployment claims or COVID-19 cases to the survey responses. As a result, our findings are purely descriptive, and we are unable to see if any of our data points are related in any way other than by time. Also, the survey indicators used in our analysis were proxy measures for mental health rather than robust indicators used in mental health screening instruments. While the indicators were used to describe possible symptoms of mental health issues such as anxiety and depression, they do not measure the severity nor duration of these symptoms.

Furthermore, the answers to the survey questions are self-reported from the panel of participants, which may be subjected to social-desirability bias. As mentioned previously, mental health concerns can be culturally stigmatizing amongst many Filipinos.²⁶ Therefore, the survey results may underrepresent the true proportion of Filipinos experiencing mental health concerns. Lastly, this study may not be representative of all Filipinos in

Hawai'i. The survey was conducted in English using an online panel, which may fail to capture individuals who do not speak English or lack internet access. Moreover, respondents to the SMS Community Pulse survey were only able to choose one ethnic group such that those of two or more ethnicities would be categorized as 'other/mixed' or 'Hawaiian/Part-Hawaiian' depending on whether they were mixed with Native Hawaiian; therefore, the primary ethnicity identified by survey respondents may not adequately reflect their cultural background or identity.

Conclusions

This study expands on previous studies regarding COVID-19 and the Filipino community with a specific focus on mental health and the socioeconomic consequences of the pandemic, which appears to be lacking in the literature. Although no conclusions can be made based on this data, the findings provide a unique insight to mental distress and economic consequences that Filipinos may have experienced during the pandemic. The trends presented in our analysis indicate that Filipinos were more likely to experience mental distress during the pandemic. Thus, it is essential to expand behavioral health services and improve employment and health to prevent mental health crises from occurring in future public health emergencies. As the pandemic is currently ongoing, albeit recovering, future research is needed to examine the long-term effects of the pandemic and how it impacts the mental health of vulnerable communities, such as the Filipino community. It is hoped that this study can spark improved services and policies to protect vulnerable communities from further health and socioeconomic disparities.

Conflict of Interest

None of the authors identify a conflict of interest.

Acknowledgements

SMS Research Hawai'i provided additional information about the SMS Community Pulse Survey Dashboard. We would like to thank Hersh Singer, Daniel Nāho'opi'i, and Tim Carson for their support.

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