



## Together We Thrive: Strengthen the Capability of AAPIs in Pima County in Dealing with COVID-19

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### ABSTRACT

**Background:** The COVID-19 pandemic had significant physical, mental, and social health impacts on the Asian Americans and Pacific Islander (AAPI) populations in Pima County, Arizona, USA. The *Together We Thrive* (TWT) project established specific activities to improve the three health areas impacted by COVID-19: newsletters, vaccination clinics, website COVID-19 resource center, community information tables, social health classes, mental health panel presentations, COVID-19 presentations, and giving out COVID-19 information and home test kits. The activities that address each of the three health areas were evaluated for their impact.

**Methods:** This was a cross-sectional study (program evaluation). The number of newsletters given out, vaccines given, website visits, community event information table visits, COVID-19 information and home test kits given out, and classes/presentation attendance were recorded. For social health classes, mental health panel presentations, and community COVID-19 presentation evaluation forms collected information on knowledge gain, usefulness of knowledge gain, and impact.

**Results:** The TWT Project had reached 9,642 people and had provided 13,398 health education/promotion contacts. Many of the same individuals had participated in more than one TWT activities/events. The largest number of people outreached was during the community events, but the largest number of health education/promotion contacts was by the newsletter.

**Conclusion:** The physical, mental, and social effects associated with COVID-19 were addressed by the project. TWT also met many of the needs identified in the AAPI survey. The project used innovative, comprehensive health education and promotion approaches to engage the AAPI populations and to meet the changing COVID-19 needs.

### ARTICLE HISTORY

Received Date: 01 Mar 2024

Accepted Date: 07 Mar 2024

Published Date: 12 Mar 2024

### KEYWORDS

COVID-19 health effects, Health education, Health promotion, Program evaluation, Pima County, Asian American and Pacific Islanders.

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### Introduction

It had been four years since COVID-19 (coronavirus) first appeared in Arizona on January 22, 2020. The coronavirus is a respiratory disease (attacks primarily the lungs) that spreads from person to person through respiratory droplets (coughs, sneezes, and talks), and contaminated surfaces and objects. It is also known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). During the COVID-19 pandemic, many Asian Americans and Pacific Islander (AAPI) communities were not included in the coronavirus health education and promotion efforts due to language, cultural, and health belief barriers and limited available public health resources and funding.

To address the disparities, the Pima County Health Department offered competitive grants in 2022 to increase the capability of underserved and unrepresentative populations to deal with the COVID-19 pandemic. The virus had significant physical, mental, and social health impacts as well as caused economy distress on the AAPI population in Pima County [1]. The Tucson Chinese Cultural Center *Together We Thrive Project* (TWT) goal was to increase the capability of the AAPI population to deal with coronavirus and other respiratory infections.

Pima County is in the southern part of Arizona that borders Mexico. It is the second most populated county (1,057,597 in 2022) [2] and the second highest AAPI populated county in Arizona. It covers 9,184 square miles that is larger than the state of New Jersey (8,723 square miles) [3,4]. On October 4, 2023, the Arizona Department of Health Services reports there were 331,370 county COVID-19 total cases and 4,401 total deaths [5].

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The county AAPI population was 47,944 (for race alone and combination) reported by the U.S. Census in 2020 [6]. Three and seven tenths percent of the county residents were Asian Americans and Pacific Islanders (race *alone*) in 2022 [2]. The top six Asian American ethnic populations (race alone) in Pima County were: (1) Chinese – 8,119, (2) Filipino – 5,697, (3) Asian Indian – 4,066, (4) Vietnamese – 3,862, (5) Korean – 2,735, and (6) Japanese – 1,427 in 2020 [6]. The top three Pacific Islander populations (race alone) were (1) Native Hawaiian – 489, (2) Chamorro – 269, and (3) Samoan – 220 [6].

There were many challenges in implementing the project. The AAPI communities were small in numbers, resided throughout the county, and difficult to reach. There were language, cultural, and health belief and practice barriers. These populations did not easily open themselves to outsiders and were reluctant to participate in health promotional programs. Mental health was not a topic that many AAPIs want to discuss or hear about. It was still a taboo subject.

Since the project occurred in the fourth quarter of the third year of the COVID-19 pandemic and the coronavirus cases were lower than the year before, many AAPIs believe the pandemic was over. There was a lack of interest in attending COVID-19 activities/events. A significant number of the population experienced COVID-19 fatigue. On May 5, 2023, the World Health Organization declared the COVID-19 global public health emergency was over [7]. Shortly after, the Biden Administration declared the COVID-19 public health emergency was over in the United States on May 11, 2023 [8]. Both declarations reinforced the perception that the pandemic was over. There were more COVID-19 vaccination hesitation in years 3 and 4 than in year 2. The vaccination rates had declined as well as interest in getting the COVID-19 boosters [1]. Not everyone know how to use the internet or has access to the internet. This limits their access to the TWT COVID-19 resource center website.

The World Health Organization definition of “health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” During the COVID-19 pandemic, the primary focus was physical health -- prevent getting the virus and treat those who have the virus. The mental and social health effects associated with the virus were given low priority. The TWT project addressed all three areas of health impacted by COVID-19: (1) the physical – being infected by the virus, (2) the mental – stress/anxiety/depression associated with COVID-19, and (3) the social – being isolated from people (Figure 1).

The Health Belief Model was the framework used (see Figure 2) to increase COVID-19 knowledge how to deal with it, to establish a positive attitude/belief in dealing with the virus, to increase consistent practice of preventive health behaviors, and to improve health outcome [e.g., reduce number of severe COVID-19 cases, stress/anxiety/depression levels, and social isolation].

The TWT project established specific activities to improve the three health areas impacted by COVID-19 during the 16 month project (October 5, 2022 to January 31, 2024).

Figure 1. Three Areas of Health Impacted by COVID -19

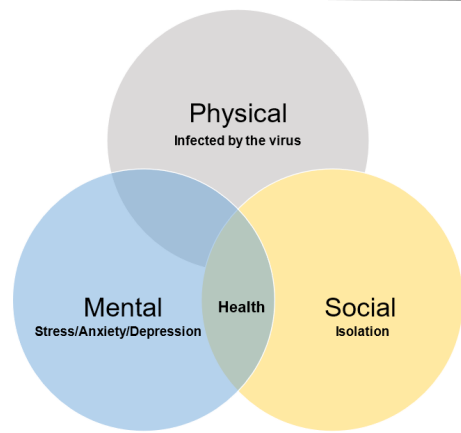
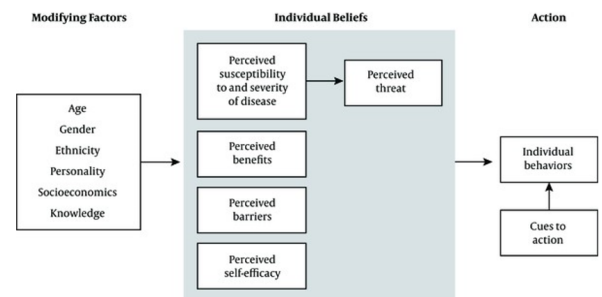


Figure 2. Health Belief Model



- (1) increase COVID-19 knowledge how to deal with the virus
- (2) establish a positive attitude/belief in dealing with the virus
- (3) increase consistent practice of preventive health behaviors
- (4) improve health outcome (e.g., reduce severe COVID-19 cases, stress/anxiety/depression, and social isolation in the AAPI communities)

**Methods**

The activities that address each of the three health areas impacted by COVID-19 were evaluated for their impact.

**Advisory Committee:** It provided the project access to the diverse communities of the AAPI groups and the mean to mobilize the communities in dealing with COVID-19. There were representatives from the AAPI communities (Asian Indian, Chinese, Filipino, Hawaiian, Japanese, Korean, Marshallese, and Vietnamese) and organizations (Pan Asian Community Alliance, The University of Arizona (UA) Asian American Faculty, Staff, and Alumni, UA Pre-Health APAMSA, OCA, and Tucson Chinese Senior Citizen Association), the AAPI faculty from University of Arizona four health professional colleges (Medicine, Nursing, Pharmacy, and Public Health), and AAPI mental and behavioral health profession. There was a representative from the Pima County Health Department (PCHD).

The committee provided guidance and feedback to the project team at the meetings (e.g., development of the TWT COVID-19 resource center website and COVID-19 survey), and the members would provide feedback by email. It help to identify the COVID-19 impacts and needs at the first meeting. At the second meeting, the Advisory Committee approved the community COVID-19 survey that provided information on

the physical/mental/social health and economic impacts and community needs of the pandemic on the AAPI population. At the meetings, COVID-19 statistics/information and project updates were provided. There had been four meetings. The AAPI leaders promoted the TWT activities/events and COVID-19 survey.

**Newsletters:** There were six issues published. The first newsletter was published on December 1, 2022. Newsletter topics included, but not limited to COVID-19 statistics updates, preventive health practices, how to cope with the stress/anxiety/depression, vaccine/therapeutic updates, how to reduce social isolation, and upcoming project events. The newsletters posted on the TWT website could be translated in Spanish, Chinese, Korean, Tagalog, and Vietnamese. The newsletters were also given out at the TWT COVID-19 information table.

**Vaccination Clinics:** Three COVID-19 and flu vaccination clinics were offered. The Pima County Health Department (PCHD) gave the vaccinations. To attract unvaccinated AAPIs and those who needed a booster vaccine to the vaccination clinics, the first two clinics were held in conjunction with other events. The first clinic was at the Pan Asian Community Alliance (PACA) in which free food bags were given out on November 19, 2022. The second clinic was held at the Tucson Chinese Cultural Center (TCCC) during the Asian Holiday Party on December 3, 2022. The last clinic was at the TCCC as a stand-alone event on January 28, 2023. At each of the clinics, there was a COVID-19 information table, the TWT team were available to answer questions about the virus, and multi-language COVID-19 handouts were provided. The PCHD gave out COVID-19 home test kits.

**COVID-19 Resource Center Website:** It provided a resource center for COVID-19 information, resources and services for the AAPI communities in the county. On January 14, 2023, the website was launched. Later, a language translator feature was added to the website that could translate the website into Spanish, Chinese, Korean, Tagalog, Vietnamese. The website was regularly updated. The link to the website is <https://www.togetherwethrivecovid19.com>.

The website provided weekly updates on Arizona and counties transmission risk/hospital admissions levels, state and Pima County weekly trends, and weekly health tips that improve physical, mental, and social health. The website listed the county COVID-19 vaccination and testing sites, consumer handouts, articles, and other resources. Upcoming TWT events and past event photos were posted on the website.

**TWT Information Tables:** There were COVID-19 information tables at six community events (PACA Vaccination Clinic/Food Bag Event, FASCOT 50<sup>th</sup> Anniversary, Chinese New Year Event, Asian Lunar New Year Event, Tucson Book Festival, and AAPI Heritage Month Event). The tables provided the means to outreach to the AAPI populations, to provide health promotion and education information about preventative health practices and importance of being vaccinated, and

answer questions about COVID-19. The tables had COVID-19 consumer information handouts in English, Spanish, and Asian languages, TWT newsletters, and refereed journal articles. At the last three events, there were the AAPI Community COVID-19 surveys given out.

**Social Health Classes:** Three social health and media/internet classes were given (August 26 at TCCC, September 16 at PACA, and September 30, 2023 at TCCC). The topics covered in the “*Improving Social Health Using Social Media and Internet*” class were: what is social health, benefits of good social health, social networks, ways to maintain your social network, social media introduction, and discussion on how to sign up for three social media platforms. Social media technical assistance was provided to the attendees. COVID-19 information, a list of vaccination clinics, and home test kits were given out to attendees.

**Mental Health Panels:** There were two panel presentations on “*Coping with Mental Health Effects of COVID-19*” given by three AAPI mental health experts on October 7 and 21, 2023 at the TCCC. The topics covered included: what are the mental health effects associated with COVID-19, how can you recognize these effects, who are most impacted by the mental health effects, how can you cope (address) with these effects, how can you build up your capabilities to deal with these effects, and where can you get help in dealing with mental health effects. The session was divided into three parts: the formal presentation, question-and-answer session, and audience participating in the coping exercise session. COVID-19 information, a list of vaccination clinics, home test kits were given out to attendees.

**Community Presentations:** There were four COVID-19 presentations given to AAPI communities. Three “*What do we know about COVID-19 and How to deal with COVID today?*” presentations were given. The topics covered: the latest COVID-19 statistics, AAPI community COVID-19 survey result summary, review ways to reduce risk of getting a severe case of COVID-19, and discussed ways to cope with the mental health effects associated with COVID-19, and improve social health. One PCHD “*Moving Beyond COVID-19*” presentation was given. The topics covered: history of pandemics, pandemic fatigue, long-COVID, and building resiliency. COVID-19 information, a list of vaccination clinics, test kits were given out to presentation attendees.

**COVID-19 Information and Kits:** The project handed out COVID-19 information and kits (home test kit, thermometer, mask, sanitizer) at the Tucson Chinese Senior Association lunches, Asian Indian School, and Chinese School. The information provided included: TWT website information, how to stop the spread of COVID-19, and where to get COVID-19 vaccination at the Pima County Health Department and how to request home vaccination. The kits were provided by the Pima County Health Department.

This was a cross-sectional study (program evaluation). The number of newsletters given out, vaccines given, website visits, community event information table visits, COVID-19 information and home test kits given out, and class/

presentation attendance were recorded. For social health classes, mental health panel presentations, and community COVID-19 presentations evaluation forms collected information on knowledge gain, usefulness of knowledge gain, and impact. The social health evaluation form comprised of 14 questions, the mental health evaluation form had 9 questions, and the community COVID-19 presentation evaluation form had 12 questions.

There were several limitations to the evaluation. Not all the attendees submitted their evaluation forms. Some attendees did not answer all the evaluation questions. The responses were either “yes” or “no.” There was no attempt to determine the amount of knowledge gained.

**Results**

The newsletters, vaccination clinics, website COVID-19 resource center visits, community information tables, social health classes, mental health panel presentations, COVID-19 presentations, and receiving COVID-19 information and home test kits participation rates varied. The outreached and health education/promotion contact numbers are summarized below.

**TWT Newsletters:** The community newsletter had been published six times (see Table 1). There were an average of 1,868 newsletter recipients and a total of 11,207 newsletters sent out.

**Table 1:** Together We Thrive Newsletters Summary.

Newsletter	Published Date	TCCC	Other Distribution	Total Given
Winter 2022	12-01-2022	1,725	165	1,890
Winter Update 2023	02-09-2023	1,725	110	1,825
Spring 2023	04-20-2023	1,725	175	1,900
Summer 2023	07-20-2023	1,725	65	1,790
Fall 2023	10-06-2023	1,725	230	1,955
Winter 2023	01-03-2024	1,725	122	1,847
Total	Avg. # = 1,867.8			11,207

**Vaccination Clinics:** Of the 282 attendees who attended the clinic/event, 65 received either a COVID-19 or a flu vaccine. Table 2 summarizes the three clinics’ activities.

**Table 2:** Together We Thrive Three Vaccination Clinics’ Activities.

Clinic	Location	Date	Attendee#	COVID-19 #	Flu #	Total #
1	PACA	11-19-22	114	23	9	32
2	TCCC	12-03-22	150	14	3	17
3	TCCC	01-28-23	18	8	8	16
Total			282	45	20	65

**COVID-19 Resource Center Website:** There were 2,017 total website visits in which 1,741 were unique visits (86.3%). A total of 3,444 pages viewed. Table 3 summarizes the website’s monthly visits, unique visits, and pages viewed during the 13 months.

**Table 3:** TWT Website Monthly Total and Unique Visits, and Pages Viewed.

Month	Total Visit Number	Unique Visit Number	Pages Viewed #
January 2023	176	154	363
February	276	227	508
March	125	113	192
April	233	200	413
May	237	230	450
June	154	135	238
July	164	130	286
August	121	102	210
September	106	103	147
October	169	152	261
November	76	58	97
December	85	61	155
January 2024	95	76	124
Total	2,017	1,741	3,444

**TWT Information Tables:** Of the 5,571 event attendees, 205 stopped by the six TWT information tables. Table 4 summarizes the community event TWT table activities.

**Table 4:** Together We Thrive Community Event TWT Table Summary.

Event	Location	Date	Attendee#	Table #
Vac. Clinic / Food Bag Event	PACA	10-13-22	93	2
FASCOT 50 <sup>th</sup> Anniversary	Viscount Suite	12-10-22	125	20
Chinese New Year Event	TCCC	01-14-23	1,800	150
Asian Lunar New Year Event	Desert Diamond	02-18-23	153	6
Tucson Book Festival	University of AZ	03-04-23	400	7
AAPL Heritage Month Event	Tucson Mall	05-13-23	3,000	20
Total			5,571	205

**Social Health Classes:** Of the 19 attendees, 18 completed the survey. This was the race/ethnicity breakdown: Chinese (12), Korean (1), Marshallese (3) and Non-AAPI (2). There were 8 males and 9 females who attended. This was the age groups breakdown: 11 were 70 years and older, 5 were 60-69, 1 was 40-49, and 1 was 30-39. Fourteen had a bachelor or higher degree and 4 were either high school graduate or had some college education. All the attendees used computer, cell phone, and the internet. Eighty-three percent used social media.

Table 5 summarizes the knowledge gains. More than 83 percent of the attendees indicated they gain knowledge in all five topics covered.

The most useful knowledge gain was the different types of social networks (88.9%). This was followed by what is social health (83.3%) and the benefits of social health (83.3%). The usefulness of the knowledge gain is summarized in Table 6.

**Table 5:** TWT Social Health and Media/Internet Class Knowledge Gain Summary.

The class increased my knowledge about	Yes %	No %	DNA %
What is social health?	88.9	0.0	11.1
Benefits of good social health.	88.9	0.0	11.1
Different types of social networks.	88.9	5.5	5.5
Ways to maintain your social networks.	83.3	5.5	11.1
How to set up a social media platform and network.	88.9	5.5	5.5

DNA: Did Not Answer; N = 18

**Table 6:** Usefulness of TWT Social Health and Media/Internet Class Knowledge Gained.

The class increased my knowledge about	Yes %	No %	DNA %
What is social health?	83.3	0.0	16.7
Benefits of good social health.	83.3	0.0	16.7
Different types of social networks.	88.9	0.0	11.1
Ways to maintain your social networks.	77.8	5.5	16.7
How to set up a social media platform and network.	72.2	16.7	11.1

DNA: Did Not Answer; N = 18

Table 7 summarizes the impact on attendees. Ninety-four percent of the attendees indicated that the class encourage them to expand their social network. Seventy-two percent planned to expand their social network. Since 83 percent of the attendees already used social media, only 33.3 percent planned to enroll in a new social media platform.

**Table 7:** TWT Social Health and Media/Internet Class Impact.

Question	Yes %	No %	DNA %
The class encourage me to expand my social network.	94.4	5.6	0.0
I will expand my social network.	72.2	16.7	11.1
I will enroll in a new social media platform.	33.3	38.9	27.8

DNA: Did Not Answer; N = 18

**Mental Health Panels:** Of the 9 attendees, 6 completed the survey. All the attendees were Chinese. There were 5 females and 1 male attendees. Five were 70 years and older, and 1 was 60-69. Five attendees had a bachelor or higher degree and 1 had an AA degree.

Those who answered the questions indicated they had gained knowledge in all six topics and the knowledge gained were useful (see Tables 8 and 9).

**Table 8:** TWT Mental Health and COVID-19 Panel Knowledge Gain Summary.

The class increased my knowledge about	Yes %	No %	DNA %
What are the mental health effects of COVID-19?	100.0	0.0	0.0
Who are most impacted by mental health effects?	83.3	0.0	16.7
How to recognize the mental health effects?	83.3	0.0	16.7
How to cope with these effects?	83.3	0.0	16.7
How to build up your capability to cope with these effects?	83.3	0.0	16.7
Where can you get help to deal with these effects?	83.3	0.0	16.7

DNA: Did Not Answer; N = 6

**Table 9:** Usefulness of TWT Mental Health and Panel Class Knowledge Gained.

The class increased my knowledge about	Yes %	No %	DNA %
What are the mental health effects of COVID-19?	83.3	0.0	16.7
Who are most impacted by mental health effects?	83.3	0.0	16.7
How to recognize the mental health effects?	83.3	0.0	16.7
How to cope with these effects?	83.3	0.0	16.7
How to build up your capability to cope with these effects?	83.3	0.0	16.7
Where can you get help to deal with these effects?	83.3	0.0	16.7

DNA: Did Not Answer; N = 6

All six attendees who completed the surveys indicated that the presentation help them cope with the mental health effects associated with COVID-19 and planned to practice the coping exercises learned (see Table 10).

**Table 10:** TWT Mental Health and COVID-19 Panel Impact.

Question	Yes %	No %	DNA %
The <i>presentation</i> help me to cope with the mental health effects associated with COVID-19.	100.0	0.0	0.0
I will practice the coping exercises learned.	100.0	0.0	0.0

DNA: Did Not Answer; N = 6

**Community Presentations:** There were 28 attendees at the four presentations (see Table 11).

**Table 11:** TWT Community COVID-19 Presentations Summary.

Presentation	Date	Location	Attendee#
1	08-19-2023	TCCC	9
2	09-22-2023	TCCC*	12
3	10-14-2023	TCCC	2
4	12-14-2023	PACA	5
Total			28

\* PCHD presentation.

Of the 16 attendees of TWT community COVID-19 presentation, 13 completed the evaluation form. This was the race/ethnicity breakdown: Chinese (7), Filipino (2), and Non-AAPI (4). There were 6 males and 7 females who attended. This was the age breakdown: 6 were 60-69 and 7 were 70-79. One had an AA degree; 8 had bachelor degrees; and 4 had a graduate degree.

Table 12 summarizes the knowledge gains. Most of the attendees who submitted the evaluation form indicated they gain knowledge in all five topics covered.

**Table 12:** TWT COVID-19 Community Presentation Knowledge Gain Summary.

The class increased my knowledge about	Yes %	No %	DNA %
Latest COVID-19 statistics.	100.0	0.0	0.0
AAPI Community COVID-19 Survey results.	100.0	0.0	0.0
Reducing the risks of getting a severe case of COVID-19.	92.3	7.7	0.0
Reducing anxiety/depression/stress related to COVID-19.	92.3	7.7	0.0
Improving social health.	92.3	7.7	0.0

DNA: Did Not Answer; N = 13

The most useful knowledge gain was the topics reducing the risks of getting a severe case of COVID-19 [92.3%] and the COVID-19 survey results [84.6%] (see Table 13).

**Table 13:** Usefulness of TWT COVID-19 Community Presentation Knowledge Gained.

The class increased my knowledge about	Yes %	No %	DNA %
Latest COVID-19 statistics.	69.2	7.7	23.1
AAPI Community COVID-19 Survey results.	84.6	7.7	7.7
Reducing the risks of getting a severe case of COVID-19.	92.3	0.0	7.7
Reducing anxiety/depression/stress related to COVID-19.	69.2	7.7	23.1
Improving social health.	69.2	7.7	23.1

DNA: Did Not Answer; N = 13

The impact on attendees is summarized in Table 14. Most of the attendees indicated that the presentation had encouraged them to practice preventive health behaviors (92.3%) and to expand their social network (92.3%). Eighty-five percent indicated that they would practice preventive COVID health behaviors regularly. Less than 50 percent planned to get the new COVID-19 vaccine.

**Table 14:** TWT COVID-19 Community Presentation Impact.

Question	Yes %	No %	DNA %
The presentation encourage me to practice preventive health behaviors.	92.3	7.7	0.0
The <i>presentation</i> help me to cope with the mental health effects associated with COVID.	76.9	15.4	7.7
The <i>presentation</i> encourage me to expand my social network.	92.3	0.0	7.7
I will practice preventive COVID health behaviors regularly.	84.6	7.7	7.7
I will get the new vaccine shot.	46.2	30.7	23.1

DNA: Did Not Answer; N = 13

The PCHD “*Moving Beyond COVID-19*” presentation topics covered: history of pandemics, pandemic fatigue, long-COVID, and building resiliency. There were 12 attendees (9 AAPIs and 3 non-AAPIs). Equal numbers of males and female attended the presentation. This was the attendees’ feedback: the presenter encouraged participation and discussion of various topics including vaccines, treatments, Long COVID, and traveling considerations. The attendees demonstrated an increase in their knowledge and the majority feel that the presentation was valuable and would recommend it to others.

**COVID-19 Information and Kits:** The project handed out 124 COVID-19 information and kits at the Tucson Chinese Senior Association lunches, Asian Indian School, and Chinese School (see Table 15).

**Table 15:** Together We Thrive COVID-19 Information and Kits Given Out Summary.

Group	Date	Number
Tucson Chinese Senior Citizen Association Lunches	Dec. 16 & Jan. 20	44
Asian Indian School	May 7 & 14	30
Chinese School	May 7 & 14	50
Total		124

Tables 16a and 16b summarize the TWT activities/events that occurred during the 16 months.

**Table 16a:** TWT Activities/Events: October 2022 to May 2023.

Activity/Event	O	N	D	J	F	M	A	M
Advisory Community Meetings (4)	X			X				
Newsletters (6)				X	X		X	
COVID-19 Website				X	X	X	X	X
Vaccination Clinics (3)		X	X	X				
Event Tables (6)	X		X	X	X	X		X
COVID-19 Survey					X	X	X	X
Social Health Classes (3)								
Mental Health Presentations (2)								
Community Presentations (4)								
COVID-19 Information and Kits (6)			X	X				4X

**Table 16b:** TWT Activities/Events: June 2023 to January 2024.

Activity/Event	J	J	A	S	O	N	D	J
Advisory Community Meetings (4)			X					X
Newsletters (6)		X			X			X
COVID-19 Website	X	X	X	X	X	X	X	X
Vaccination Clinics (3)								
Event Tables (6)								
COVID-19 Survey								
Social Health Classes (3)			X	2X				
Mental Health Presentations (2)					2X			
Community Presentations (4)			X	X	X		X	
COVID-19 Information and Kits (6)								

The TWT Project had outreached 9,642 people and had provided 13,398 health education/promotion contacts (see Table 17). Many of the same individuals had participated in more than one TWT activity/event. The largest number of people outreached was during the community events, but the largest number of health education/promotion contacts was by newsletter.

**Table 17:** TWT Outreach and Health Education/Promotion Contacts Summary.

Activity/Event	Outreach #	Health E/P Contact #
Newsletters (6 X Avg. # sent out = E/P contact #)	1,868	11,207
Website Unique Visits (13 months)	1,741	1,741
Vaccination Clinics (3)	282	65
Community Event Tables (6)	5,571	205
Social Health Classes (3)	19	19
Mental Health Presentations (2)	9	9
Community COVID-19 Presentations (4)	28	28
Other Activities- COVID-19 Information and Kits (3)"	124	124
<b>Total</b>	<b>9,642</b>	<b>13,398</b>

The primary areas that impacted social, physical, and mental health identified in the COVID-19 Community Survey were addressed by TWT project activities/events (see Tables 18 and 19).

The Project addressed six of the eight community needs identified in the survey: access to COVID-19 testing, accurate information about COVID-19, COVID-19 vaccine, information

in plain language and written information in prefer languages, and need to help use technology (see below and Table 20).

1. Access to COVID-19 testing – website list testing sites and home test kits given out at TWT activities and events.
2. Accurate COVID-19 information – newsletters, website, community event information tables, and classes/presentations.
3. Access to vaccination – offered 3 vaccination clinics, website lists vaccination sites, and vaccination sites listing handout.
4. COVID-19 information in plain language – newsletters, website, consumer handouts, and classes/presentations.
5. Help using technology – Social health and media/internet classes
6. COVID-19 written information in my language – consumer handouts, website, and newsletters.

**Table 18:** COVID-19 Impacts on the AAPI Population.

COVID-19 Impact	Number	Percent
Attended less social gathering events	179	87.3%*
Became more socially isolated	122	59.5%*
Decreased regular exercising	86	42.0%
Had a negative impact on my mental health	84	41.0%*
Missed preventive care medical/dental/vision checked ups	79	38.5%
Missed routine health screenings	73	35.6%
Had a negative impact on my physical health	67	32.7%*
Reduced household income	51	24.9%
Experienced more anti-Asian racism	46	22.4%
Missed elective procedures	29	14.1%
Other impact	21	10.2%

\*Addressed by the TWT Project. N = 205

**Table 19:** Emphasis of Activities/Events on the Health Areas.

Activity/Event	Physical	Mental	Social
Newsletters	X	X	X
Website	X	X	X
Vaccination Clinics	X		
Community Event Tables	X		
Social Health Classes			X
Mental Health Presentations		X	
Community COVID-19 Presentations	X	X	X
Handout COVID-19 Information/Kits	X		

**Table 20:** AAPI COVID-19 Needs.

COVID-19 Need	Number	Percent
Access to COVID-19 testing	81	39.5%*
Where to find accurate information about COVID-19	72	35.1%*
Access to COVID-19 vaccine	67	32.7%*
COVID-19 in plain language (easier to understand)	42	20.5%*
Financial support	36	17.6%
Need help using technology	24	11.7%*
Help paying for healthcare cost	22	10.7%
COVID-19 written information in my language	19	9.3%*
Other needs	13	6.3%

\*Addressed by the TWT Project. N = 205

## Discussion

During the COVID-19 pandemic, the primary focus was physical health -- prevent getting the virus and treat those who have the virus. The mental and social health effects associated with the virus were given low priority. The TWT project addressed all three areas of health that impacted the AAPIs. To address the three aspects of health were not easy. There were many challenges encountered in the project.

The AAPI populations were small in numbers, resided throughout the county, and difficult to reach. There were language, cultural, and health belief and practice barriers. These populations did not easily open themselves to outsiders and were reluctant to participate in health promotional programs. The TWT advisory committee members were the TWT liaison with the AAPI populations and organizations. The TWT newsletter and community information tables directly outreached to AAPI communities. The project offered a variety COVID-19 activities/events during the 16 months.

Since the project occurred in the fourth quarter of the third year of the COVID-19 pandemic and the coronavirus cases were lower than the year before, many AAPIs believed the pandemic was over and lack of interest in attending COVID-19 activities/events. There were a significant number of the population who were experiencing COVID-19 fatigue. These were difficult challenges to overcome in the second half of the project. The TWT project provided updated COVID-19 statistics and information in its newsletters and resource center website, and to offer COVID-19 activities/events.

There were more COVID-19 vaccination hesitation in years 3 and 4 than in year 2. The vaccination rates declined as well as interest in getting the COVID-19 boosters. The TWT project offered three vaccination clinics in fourth quarter of year 3 and first quarter of year 4. The newsletters encouraged those who have the highest risk of get a severe case to get vaccinated and stay updated on the vaccines. COVID-19 information given out at TWT activities/events included a listing of vaccination clinics and how to request the PCHD home vaccination service.

Not everyone know how to use the internet or has access to the internet. The social health and social media/internet classes provided information on where to get low cost or free internet services. The class demonstrated how to navigate the TWT COVID-19 resource center website.

Mental health was not a topic that many AAPIs wanted to discuss or hear about. It was still a taboo subject. This was an exceedingly difficult challenge to overcome. The newsletters and resource center’s health tips provided ways to reduce stress/anxiety/depression effects associated with COVID-19. Three AAPI mental/behavior experts gave two coping with Mental Effects Associated with COVID-19 panel presentations. This was one of the few events in Pima County that engaged the AAPI population in mental health discussions.

The timeliness in implementing the TWT project was not ideal. The TWT activities/events offered during the time when there were low COVID-19 cases. If the project activities

were implemented a year earlier when there were high case numbers and more concerns about COVID-19, there may be higher participation numbers for the social health classes, mental health presentations, and community COVID-19 presentations? [9].

The TWT Project had reached 9,642 people and had provided 13,398 health education/promotion contacts. Many of the same individuals had participated in more than one TWT activities/events. The highest number of people outreached was during the community events, but the largest number of health education/promotion contacts was by newsletter, while the lowest participation numbers were social health classes, mental health presentations, and community COVID-19 presentations.

### Conclusion

The physical, mental, and social effects associated with COVID-19 were addressed by the project. TWT also met many of the needs identified in the AAPI survey. The project used innovative, comprehensive health education and promotion approaches to engage the AAPI populations and to meet the changing COVID-19 needs.

The Health Belief Model was an effective framework used in the TWT project to accomplish its health education/promotional goals. This approach could be used in minority and underserved communities to strengthen their capabilities in dealing with COVID-19.

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