

# Farmworker COVID-19 Community Assessments

Atlantic & Cumberland Counties, NJ

JULY-AUGUST 2022



# NCFH

National Center for Farmworker Health, Inc.

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## ACKNOWLEDGEMENTS

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# 1. INTRODUCTION

This report provides a profile of farmworkers and their experiences during the COVID-19 pandemic in Atlantic and Cumberland Counties, New Jersey that was conducted as part of the Farmworker COVID-19 Community Assessments (FCCA) for the National Center for Farmworker Health (NCFH). These assessments are part of a national outreach and vaccination project funded by the Centers for Disease Control and Prevention (CDC). Farmworkers are a particularly vulnerable population during a public health emergency due to their travel, working and living conditions. The purpose of the FCCA was to develop and implement data collection methodologies that could quickly be activated during a public health emergency, such as the COVID-19 pandemic. The rapid assessment provides CDC and others with actionable findings about farmworkers' experiences and recommendations on how to best meet their needs arising from the COVID-19 pandemic.

This report is one in a series of community assessments conducted with farmworkers in diverse rural communities in different parts of the U.S. Atlantic and Cumberland counties were selected as part of the national assessment project due to the high number of farmworkers in the region, including a high number of migratory farmworkers that arrive for the summer. Additionally, it is the first community in the northeastern U.S. to be assessed through this project.



## 2. BACKGROUND ON ATLANTIC AND CUMBERLAND COUNTIES

Together, Atlantic and Cumberland counties are home to over 420,000 people with an agricultural industry that makes over \$333 million annually. (1,2) Cumberland County has a higher grossing industry, making up 19% of the state's agricultural sales with over 560 farms across 66,256 acres. Atlantic County is made up of smaller farms on average, with 450 farms on 29,016 acres and contributes 11% of the state's sales. There has been an increase in the number of farms in Atlantic County from 2012 to 2017 whereas Cumberland County has experienced a small decrease in the number of farms during the same time. Both counties' industries are majority crop production (98-99% of total sales) and are ranked 1st and 2nd in the state for sales for crop products. (1,2)

Figure 2.1: Atlantic and Cumberland Counties



Table 2.1: Key Agricultural Data for Atlantic and Cumberland Counties

County	Population	Number of Farms	Acres of Farm Land	Ave Farm Size	Top Crops by Sales	% of Farms that Hire labor
Atlantic	274,966	450 farms	29,016 acres	64 acres	Fruits, tree nuts, berries	31%
Cumberland	153,627	560 farms	66,256 acres	118 acres	Nursery, greenhouse, floriculture, sod	34%

Sources: U.S. Census of Agriculture 2017, U.S. Census Bureau (1,2,3)

NCFH estimates that there are approximately 8,328 farmworkers in Atlantic County and 4,254 farmworkers in Cumberland County. (4) H-2A guest workers are foreign nationals who receive a temporary visa to work in agriculture in the U.S., and do not bring their spouse or children with them to the U.S. (5) In 2021, the temporary visa program employed about 448 workers in Atlantic County and 599 workers in Cumberland County, making up a small proportion of the overall farm labor workforce. (6) Based on data from 2021, the number of H-2A guest workers present is highest during the summer months (see Figure 2.2 and 2.3). Most H-2A guest workers first arrive from their countries of origin between March and June in Cumberland County and May and June in Atlantic County.

**Figure 2.2: Guest Workers Present per Month, Cumberland County 2021**

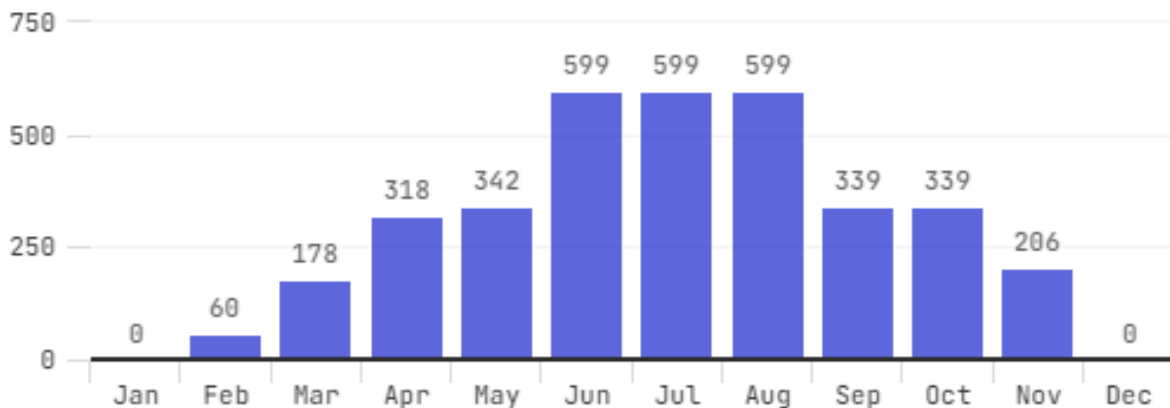


Image: NCFH Farm Labor Data Dashboard (4)

**Figure 2.3: Guest Workers Present per Month, Atlantic County, 2021**

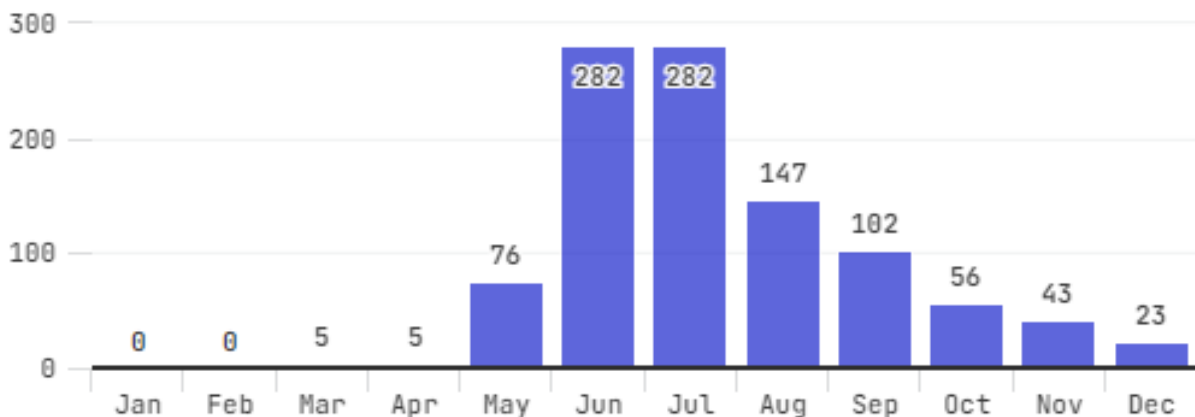


Image: NCFH Farm Labor Data Dashboard (4)

### 3. METHODOLOGY

The FCCA's methodology included both a quantitative and a qualitative component and was based on the CDC's rapid community assessment methodology. (7) To determine community sites and best practices for recruitment, NCFH relied on information shared from key stakeholders: El Comité de Apoyo a los Trabajadores Agrícolas (CATA), Migrant Outreach Worker, and the New Jersey Department of Health. NCFH contracted with CATA outreach staff to collect farmworker surveys with NCFH staff. This assessment received a non-research exemption by the CDC; therefore, IRB approval was not needed. This report summarizes quantitative data from survey respondents and qualitative data from interview respondents and community stakeholder meetings.

Quantitative survey respondents were eligible to participate if they were a farmworker, defined as individuals who had been employed in an industry under NAICS codes 111, 112, 1111, or 1112, which includes both crop and animal production and support activities for those industries. They were eligible to participate if they had worked in agriculture one day or more since March 15, 2020. The quantitative data was collected using an in-person survey. The survey examined farmworkers' knowledge, attitudes and practices related to the COVID-19 emergency with a focus on vaccination coverage, as well as structural factors that CDC and other federal, state, and local agencies and organizations could address, such as barriers to safety, healthcare access, testing and vaccination. Respondents were recruited by NCFH staff at a variety of locations, including randomly selected job and housing sites, and non-randomly selected check cashing houses, stores, laundromats, and restaurants. Before participating in the survey, all respondents were provided with a verbal informed consent that emphasized that all data collected would be anonymous, no individual data would be shared publicly, and that they could stop participating in the survey at any time and that they did not have to answer all the questions if they did not want to.

The survey took between 15 and 30 minutes to complete, and survey respondents received a \$30 gift card for their participation. The surveys were conducted as an in-person interview in English or Spanish, with ad-hoc interpretation for Mesoamerican language speakers when needed. Descriptive statistics for the survey data are provided in the key findings section below. All survey data are unweighted.

Qualitative interviews were conducted with three different groups: 1) farmworkers and 2) key informants/farmworker experts including farmworker organization representatives, and farmworker advocates. Each interview lasted approximately 60 minutes, and participants were paid \$100 each for their participation. Interviews were conducted in-person or over the phone in English or Spanish. Farmworkers were recruited from survey participants or word of mouth from local outreach workers. Key Informants were recruited from stakeholders in the region and/or from referral of other key informants. Other FCCAs have included employer interviews, however no employers were interviewed for this assessment due to issues in recruitment (additional information found in the limitations section).

## 4. KEY FINDINGS

*A total of 224 surveys were completed in-person in Atlantic and Cumberland counties, New Jersey by NCFH staff with help from local outreach workers from CATA and the community. Data collection took place mostly on the weekends from July 7– August 7, 2022. Six qualitative interviews were conducted, including four in-depth interviews with farmworkers, and two key informant interviews with local farmworker experts or representatives of local farmworker-serving organizations. All surveys and interviews were conducted in English or Spanish.*

### DEMOGRAPHICS

The majority of respondents surveyed were male (89%), with a median age of 36 years, and identified as Hispanic/Latinx (87%). Three out of four respondents were born in Mexico (72%), and 12% were born in Puerto Rico. Approximately one-third of respondents were undocumented (36%), one-quarter had H-2A visas (28%), and nearly one-quarter were either permanent residents (12%) or U.S Citizens (10%). Seventy percent of farmworkers surveyed migrated in the past 12 months for work (see Table 4.1).

While the survey sample included farmworkers from Mexico, Haiti, Puerto Rico, and other Latin American countries, key stakeholders also described the diversity of the farmworker community to include workers from Korea, China, and Eastern Europe. Key stakeholders also confirmed the presence of a large farmworker population that does not have documentation and the importance of outreach to support their access to health care or getting a driver's license. Almost all respondents spoke Spanish (96%), and only 15% spoke English.



## MESOAMERICAN INDIGENOUS WORKERS

While there is no official definition for who are considered Indigenous populations, it is recognized that Indigenous populations continue to practice social and cultural traditions that pre-date colonial societies. (8) Latin America's Indigenous populations are diverse in their culture, language, food, and religious & spiritual practices. Historically and currently, Indigenous populations have experienced higher levels of discrimination and violence, facing attacks on their cultural practices including language, lifestyle and food. (9) This is evident by the ongoing violence experienced by these populations since the beginning of colonization and the continued marginalization of Indigenous peoples in social and governmental systems.(10,11) Starting in the 1960s, the first documented *en masse* migration of Mesoamerican Indigenous populations to the U.S. happened through the Bracero program. Currently the number of Mesoamerican Indigenous populations in the U.S. keeps growing due to social and economic push-pull factors and due to displacement from violence and environmental reasons, such as climate change.(10, 12)

The racial and ethnicity categories traditionally used for U.S. census purposes may not fully encapsulate Indigenous identity of Mesoamerican Indigenous individuals or be recognized by this population. Due to the discrimination experienced, they may not want to be identified as being racially Indigenous. In this survey following the National Agricultural Workers Survey (NAWS) convention, NCFH created a composite metric to identify Indigenous respondents, utilizing a combination of responses from language spoken as a child and currently as an adult, or racially identifying as Indigenous.(13)

In this sample, 66 respondents were identified under the Indigenous metric, comprising 29% of all respondents. This is almost three times higher than that of the national percentage (10%) of farmworkers that identify as Indigenous based on the NAWS.(13) There were 11 Indigenous languages captured in this sample: Zapotec, Nahuatl, Triqui, Mam, Mayan Yucateco, Tzelzal, Tzotzil, Ch'ol, Amuzgo and Q'anjob'al. The most common Indigenous languages spoken by respondents were Nahuatl and Zapotec. Nahuatl has more than 30 variants that vary by state and geographic region and is the most widely spoken Indigenous language in Mexico. (14) The Mexican states with the largest Nahuatl speaking populations are Durango, Guerrero, Hidalgo, Jalisco, Mexico, Morelos, Oaxaca, Puebla, Tabasco, and Veracruz. Zapotec is a language family with 62 variants and is primarily spoken in the states of Oaxaca and Veracruz. (15)

During a preliminary findings meeting, stakeholders discussed the difficulties of identifying and providing support specific to Indigenous farmworkers. During an interview, one key informant explained, "I run into a few Indigenous workers more than I used to who I know are Indigenous, but they don't tell me they're Indigenous. They tell me that they're from Oaxaca and from Chiapas. And maybe that's something I need to work on. So like, try to see if they if they have a third language."





Table 4.1: Demographics

Characteristic <sup>1</sup>	Frequency (Percentage) N = 224
<b>Sex</b>	
Female	20 (9%)
Male	199 (89%)
No answer/Not applicable	3 (1%)
Don't know	2 (1%)
<b>Age Group</b>	
18-25	40 (18%)
26-54	145 (66%)
55+	29 (13%)
No Answer	7 (3%)
Unknown	3 (1%)
<b>Marital Status</b>	
Civil Union	45 (20%)
Divorced	9 (4%)
Married	87 (39%)
Single	78 (35%)
Other	5 (2%)
<b>Country of Birth</b>	
Dominican Republic	5 (2%)
Guatemala	11 (5%)
Haiti	15 (7%)
Mexico	162 (72%)
Puerto Rico	26 (12%)
United States	2 (1%)
<b>Race<sup>2</sup></b>	
Black/African American	20 (9%)
Indigenous	45 (20%)
White	16 (7%)
Other	110 (49%)
<i>Hispanic/Latinx</i>	84 (76%)
<i>Mestizo</i>	15 (14%)
<i>Moreno/a</i>	6 (5%)
<i>Other</i>	7 (6%)
Did not report	33 (15%)
<b>Racially or Linguistically Indigenous<sup>3</sup></b>	66 (29%)
<b>Ethnicity</b>	
Hispanic/Latinx	194 (87%)
Not Hispanic/Latinx	21 (9%)
Don't know	3 (1%)
Other	6 (3%)
<b>Immigration Status</b>	
H-2A work visa	63 (28%)
Other visa	2 (1%)
Permanent resident	27 (12%)
Temporary Protected Status	10 (4%)
U.S. Citizen	23 (10%)
Undocumented	80 (36%)
Did not report	13 (6%)
Unknown	6 (3%)
<b>Migrated to work in agriculture in the last 12 months<sup>4</sup></b>	156 (70%)

1. If Unknown is <5%, responses are not included in the table. Percentages are rounded and may not sum to exactly 100%.

2. Respondents who selected more than one race were included in the "Other/multiple races" category

3. Following the National Agricultural Workers Survey (NAWS) convention, NCFH created a composite metric to identify Indigenous respondents, utilizing a combination of responses from language spoken as a child and currently as an adult, or racially identifying as Indigenous. (13)

4. Migration was defined as working in agriculture in a place different than the interview location for one week or more in the past 12 months.

All H-2A guest workers were automatically classified as migratory.

## HOUSING, HOUSEHOLD CHARACTERISTICS, AND TRANSPORTATION

Housing and transportation are social determinants of health that influence the risk of COVID-19 among farmworkers.<sup>(16)</sup> Shared transportation with individuals from different households and overcrowded living conditions are both factors that increase infectious disease transmission, such as COVID-19. Two out of three respondents lived in barracks (66%) and 22% lived in a house (see Table 4.2). Workers living in employer-provided housing frequently experience overcrowding and share housing with non-family members. Almost all respondents lived in employer-providing housing (91%) and lived in overcrowded housing (93%), increasing their risk of COVID-19 transmission.

Half of all respondents (53%) relied on labor buses for transportation to work. Other common transportation used to get to work was 'raiteros' (17%) and driving a car (16%). Respondents were evenly split as to whether they traveled with farmworkers from other households, with 49% reporting yes and 49% reporting they did not. Traveling with people from outside your household is a risk for transmission of infectious respiratory diseases.

**Table 4.2: Housing Type, Transportation, and Risk Factors for Infectious Disease Transmission**

Characteristic	Frequency (Percentage) N = 224
<b>Housing Type</b>	
'Traila'/mobile home/trailer house/RV/manufactured home	5 (2%)
Apartment	14 (6%)
Dormitories/barracks/shelters	148 (66%)
Garage/Outbuilding	3 (1%)
Hotels	5 (2%)
House	49 (22%)
<b>Transportation to Work</b>	
Labor bus	119 (53%)
Drive a car (own or borrowed)	35 (16%)
Rides with relative or co-worker	13 (6%)
Walk or ride a bicycle	12 (5%)
Rides with 'raitero'	39 (17%)
Don't know	1 (<1%)
Other	5 (2%)
<b>Housing and transportation risk factors</b>	
Lives in overcrowded household <sup>1</sup>	206 (93%)
Lives in employer-provided housing	204 (91%)
Travels to work with persons outside of household	110 (49%)

1. The definition of an overcrowded household follows the U.S. Census definition<sup>(17)</sup> which is a ratio of greater than one for the ratio of persons per room (excluding bathrooms and garages).

## GENERAL HEALTH CARE ACCESS & SOURCES OF HEALTH INFORMATION

During the last year, only 21% of respondents reported needing medical care. Of those 47 respondents, 91% received care when they needed it (see Table 4.3). The majority of respondents sought health care at a clinic (44%) or hospital (31%). In their interviews, key informants discussed the improvements in farmworkers' access to health care including use of mobile units, Saturday clinics, partnerships with local Spanish radio stations and businesses, and the importance of employer buy-in for supporting vaccinations. Additionally, key informants noted that farmworkers also had access to vision and dental care in the area if needed. However, barriers still exist to healthcare, especially for farmworkers that are new to the U.S. In their interview, one farmworker expressed a need for education for H-2A guest workers addressing the basics of the U.S. healthcare system since it differs from that of the Mexican health care system, especially with billing and costs.

Survey respondents were asked how much they trusted health information from various sources (see Table 4.3). Doctors and nurses were the most trusted messenger, with approximately half of respondents reporting they “always” trusted health information from doctors and nurses (49%). Employers and Community Health Workers (CHWs) were also trusted by respondents, with 38% reporting they always trusted health information from employers and 36% always trusting CHWs. Approximately half (45%) did not trust health information from social media at all.

**Table 4.3: Health Care Utilization and Trusted Sources of Health Information**

Characteristic	Frequency (Percentage) N = 224
<b>Needed medical care in past 12 months</b>	47 (21%)
Received medical care when needed	42 (91%)
<b>Most common sources of health care services among those who utilized health care in the U.S. (n=32)<sup>1</sup></b>	
Clinic	14 (44%)
Emergency Room	1 (3%)
Hospital	10 (31%)
Migrant/Community Health Center	7 (22%)
<b>Sources of trusted information for health issues<sup>2</sup></b>	
Doctor/nurse	109 (49%)
Relatives/friends	44 (20%)
Community Health Workers	80 (36%)
Social Media	21 (9%)
Employer	84 (38%)

1. Respondents could choose more than one answer. Of the 42 respondents who received medical care when they needed, only 32 respondents reported receiving that care in the U.S.

2. Respondents could choose more than one answer. Frequency and percentages reflect responses for “Always” trust health information from selected source.



## COVID-19 SAFETY TRAINING AND INSTRUCTION

Respondents were asked if they had received instructions or training at work about washing their hands, how and when to cover their face, social distancing, and isolation procedures. While 88% of respondents had received at least one training covering one of these topics, 42% of respondents had not received a comprehensive training that covered all four topics (see Table 4.4). A slightly larger proportion had not received the comprehensive training in their preferred language (44%).

When asked about COVID-19 measures at work, 86% of respondents reported having hand washing stations provided, 63% were provided face masks by their employer, and 58% reported their employer regularly checked their temperature and COVID-19 symptoms before work.

**Table 4.4: COVID-19 Safety Training and Instruction**

Characteristic	Frequency (Percentage) N = 224
<b>Workplace COVID-19 safety training received</b>	
Received training in at least one topic <sup>1</sup>	197 (88%)
Received training in all four topics	131 (58%)
Received all four trainings in preferred language	125 (56%)
<b>COVID-19 prevention measures given at work<sup>2</sup></b>	
Employer provides face masks	141 (63%)
Check temperature and ask about COVID-19 symptoms	129 (58%)
Employer provides hand washing station	193 (86%)

1. Topics included 1) hand washing, 2) physical distancing, 3) use of face coverings, and 4) quarantine or isolation procedures.  
2. Respondents were able to choose more than one response.

## COVID-19 TESTING AND ILLNESS

Less than one in four respondents reported contracting COVID-19 at some point during the pandemic (see Table 4.5). Approximately two-thirds of respondents (62%) had taken a COVID-19 test, of which 27% reported receiving a positive result.

Interview participants discussed the changes in access to testing throughout the pandemic. According to key informants, testing was available to farmworkers in the early stages of the pandemic at clinics or through mobile units that visited the farms. Participants interviewed also stated that at some points in the pandemic tests were difficult to access for farmworkers or results took too long to be of use.



A key informant explains, “During the beginning of the pandemic, the tests were just, it was hard to get an appointment. There weren't that many appointments available. It would take like three weeks to a month to have a result. So I feel like a lot of the people, they just feel like it's pointless to get a test if it's going to take that long.”

Respondents were asked what actions they took once they knew or thought they had contracted COVID-19. Of those that knew or thought they had contracted COVID-19 and/or received a positive COVID-19 test (n=56), 66% reported isolating from family members or roommates, 88% reported wearing a mask or face covering, and 80% did not participate in social gatherings. More than half of respondents (61%) sought medical care. Approximately one in four (23%) respondents who believed they had COVID-19 continued working.

The ability to isolate and the quarantine options available to farmworkers were brought up during interviews. Health centers worked alongside nonprofits in the region to provide quarantine housing. However, quarantine options were not accessible to everyone. One key informant discussed the barriers that undocumented people faced when it came to utilizing quarantine housing such as traveling long distances and a general fear and distrust of people they do not know.

*“Nobody wanted to go to Atlantic City [for quarantine housing].  
If you're an undocumented farmworker, you are not getting in a van or a cab with people you don't know. And going to Atlantic City that did not work. It might have worked for you or I, but for that population, it didn't work”*  
—Key Informant

**Table 4.5: COVID-19 Illness and Testing**

Characteristic	Frequency (Percentage) N = 224
<b>Self -reported COVID-19 Illness<sup>1</sup></b>	49 (23%)
<b>Taken a COVID-19 test at least once</b>	138 (62%)
Received a positive result	37 (27%)
<b>Actions taken among farmworkers who reported they had COVID-19 or tested positive for COVID-19 (n=56)<sup>2</sup></b>	
Isolated from family or roommates	37 (66%)
Wore a mask or face covering	49 (88%)
Participated in social gatherings	11 (20%)
Sought medical care	34 (61%)
Continued working	13 (23%)

1. Includes respondents who said they knew they had COVID-19 or thought they had COVID-19.

2. Respondents could choose more than one answer. Respondents include those that thought they had contracted COVID-19 and those that received a positive COVID-19 test.

## COVID-19 VACCINATIONS

Two-thirds of respondents were fully vaccinated against COVID-19 with an FDA-or WHO approved vaccines (66%). However, only a little more than one-third of respondents had received a booster (33%) at the time of the survey (see Table 4.5).

A small proportion of respondents (4%) were partially vaccinated, having received only one-dose of a two-dose vaccine. Approximately one in five respondents (19%) were not vaccinated at all. Of those unvaccinated, almost half did not want to receive the vaccine (48%), 30% were undecided about the vaccine, and 20% wanted to receive the vaccine. Respondents who were undecided or did not want to receive the vaccine were asked about their hesitancy. Fear of side effects (n=11) and of generally receiving vaccines (n=8) were the most common responses.

In in-depth interviews, farmworker participants noted how misinformation spreading through social media as well as questions around the effectiveness of the vaccines impacted their communities and decisions around getting the vaccines. Among all farmworkers interviewed, there were mixed sentiments surrounding the vaccine. Some participants were grateful for the vaccine and spoke about how they played an active role in encouraging others in their community to get vaccinated. Other farmworkers explained they felt they had to get vaccinated to travel and work in the U.S. Additionally, some farmworkers interviewed expressed hesitancy around receiving a booster or future doses of the COVID-19 vaccine despite receiving the initial series. One farmworker explains, “No. Me quedo así porque... no me pongo refuerzo ni nada, no confío en eso//No. I'll stay like this...I will not get the booster or anything, I don't trust it” after revealing the only reason they received the initial series was to travel for work.

Among those vaccinated, the most common places respondents reported receiving a vaccine was in another country (37%), or at a U.S. Migrant Clinic/Community Health Center (25%). Other respondents received a vaccine at work in the U.S. (17%) or at a U.S. pharmacy (13%). In their interviews, key informants discussed vaccination strategies that were successful in their farmworker communities. Two major themes that emerged were bringing vaccines directly to farmworkers and having outreach workers directly from the community or with similar backgrounds to farmworkers promote the vaccine and provide education about it. One key informant explains in their interview, “Hiring or prioritizing workers that come from these communities, because I feel like there's just “Hay mas confianza” (there is more trust). Especially if you know the area and I feel like the more they see you, the more confident they are in speaking out or being encouraged to get the vaccine or just knowing what, like, what are some hardships that they're facing because of COVID.”

*"No, eso es como una perdida de tiempo, entiendo yo. Como que... ya me puse una dosis, para qué ponerme otra si ya se supone que me hiciera lo que me va a hacer el refuerzo."*

*"No, that's a waste of time, as I understand it. I already got a dose, why do I need to get another if it's going to do what the first dose already did."*

*- Farmworker*

**Table 4.6: COVID-19 Vaccinations**

<b>Characteristic<sup>1</sup></b>	<b>Frequency (Percentage) N = 224</b>
<b>COVID-19 vaccinations</b>	
Fully Vaccinated <sup>2</sup>	147 (66%)
Partially Vaccinated	8 (4%)
Not Vaccinated	42 (19%)
<i>Does not want vaccine</i>	19 (48%)
<i>Undecided about vaccine</i>	12 (30%)
<i>Wants to receive vaccine</i>	8 (20%)
Unknown Vaccination status <sup>3</sup>	27 (12%)
<b>COVID-19 booster status</b>	
Fully vaccinated and received at least one booster dose	75 (33%)
<b>Location of first dose (n=182)</b>	
Other Country	68 (37%)
U.S. at work	31 (17%)
U.S. Community Event	6 (3%)
U.S. Hospital	1 (1%)
U.S. Migrant Clinic / Community Health Center	46 (25%)
U.S. Pharmacy	24 (13%)
U.S. Other	3 (2%)
Don't know	3 (2%)
<b>Most common reasons for vaccine hesitancy among unvaccinated farmworkers (n=32)<sup>4</sup></b>	
Afraid of side effects	11 (34%)
Fear of getting vaccines	8 (25%)
Afraid of getting infected on site	2 (6%)

1. If Unknown is <5%, responses are not included in the table.

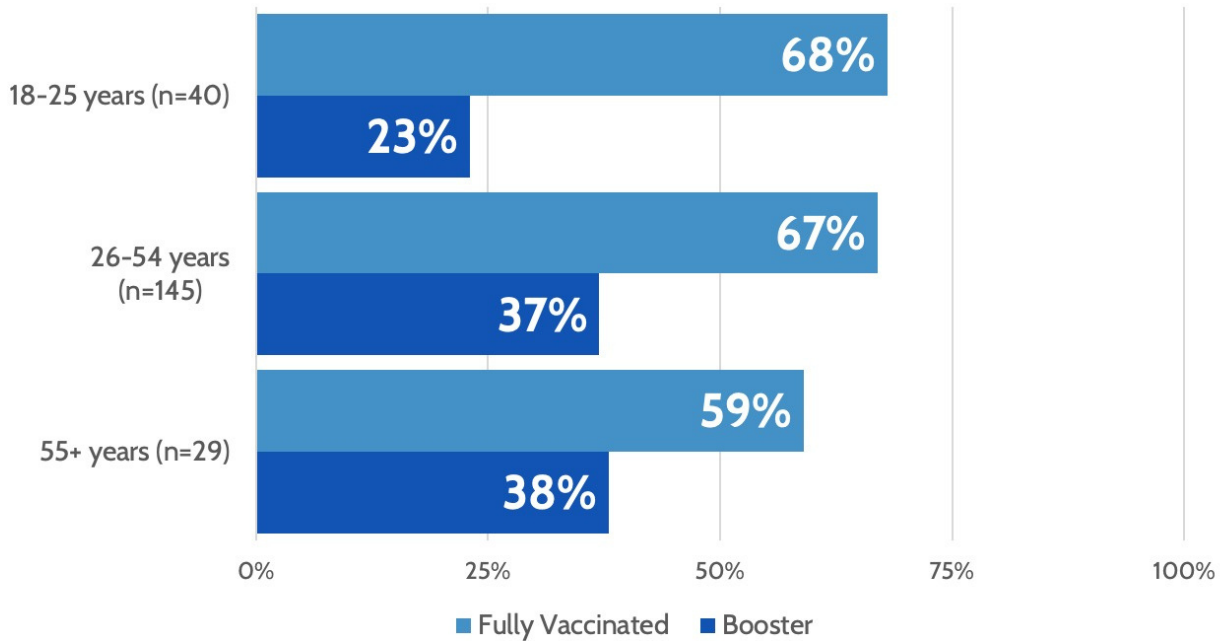
2. Fully vaccinated includes respondents who received one dose of the Janssen/Johnson and Johnson vaccine or two doses of any COVID-19 vaccine approved by the U.S. Food and Drug Administration or the World Health Organization.

3. Respondents that had received at least one dose of COVID-19 vaccine but did not know which vaccine they received were classified as an unknown vaccination status.

4. Respondents could choose more than one answer. Includes most common responses from respondents who reported they were unvaccinated and replied no, perhaps, don't know, or no answer to wanting to receive the vaccine.

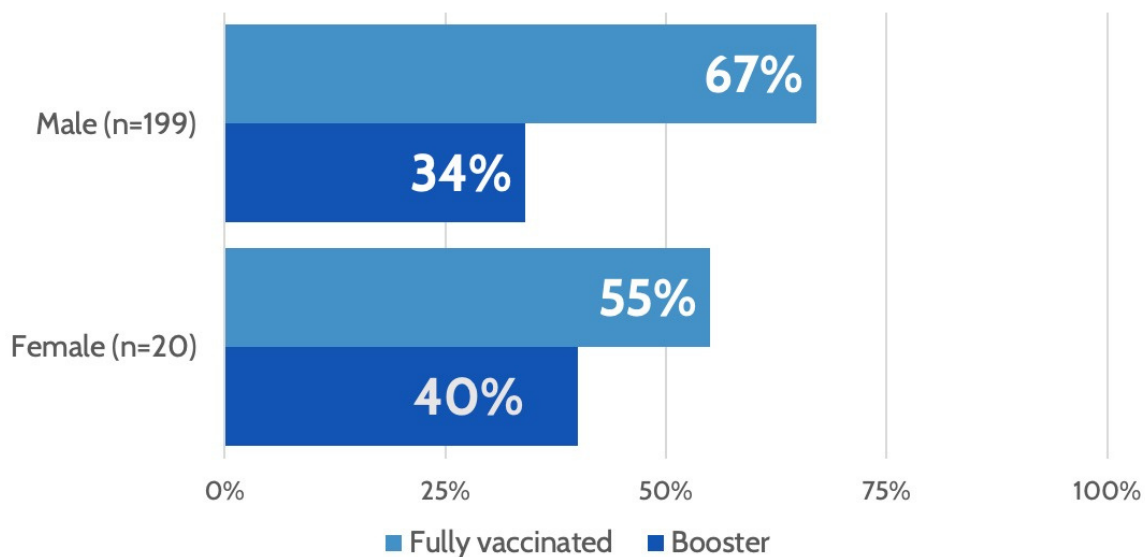
Vaccination status varied by key demographic characteristics. However, there was not much difference in vaccination uptake among the two younger age groups surveyed. Approximately two out of three respondents in each of the younger age groups were fully vaccinated (see Figure 4.1). Respondents 55 or older had the lowest vaccination uptake with 59%. However, the proportion of respondents that had received the booster within each age group increased by age. Almost two in five respondents 55 years and over had received the booster (38%), while 37% of respondents 26-54 years, and 23% of respondents 18-25 years received the booster.

**Figure 4.1: Percentage of Respondents Fully Vaccinated and Boosted by Age**



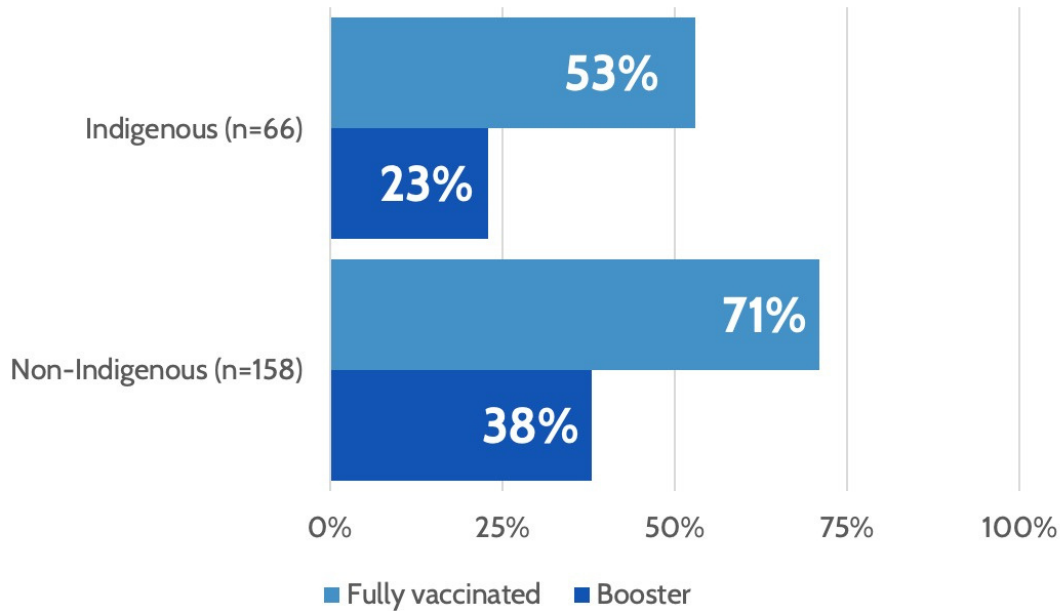
Approximately two out of three male respondents were fully vaccinated (67%), whereas slightly over half of female respondents reported being fully vaccinated (55%) (see Figure 4.2). However, a higher proportion of female respondents reported being boosted than male respondents, 40% and 34% respectively. Additionally, a lower proportion of Indigenous respondents were fully vaccinated (53%) or received the booster (23%) than Non-Indigenous respondents (see Figure 4.3).

**Figure 4.2. Percentage of Respondents Fully Vaccinated and Boosted by Sex**





**Figure 4.3: Percentage of Non-Indigenous vs Indigenous Respondents who are Fully Vaccinated and Boosted\***



\*Following the National Agricultural Workers Survey (NAWS) convention, NCFH created a composite metric to identify Indigenous respondents, utilizing a combination of responses from language spoken as a child and currently as an adult, or racially identifying as Indigenous. (13)

There were also vaccination disparities when considering immigration status and country of birth of respondents (see Figures 4.4 and 4.5). Almost nine out of ten respondents with H-2A visas reported being fully vaccinated (87%), whereas slightly under half of respondents who are undocumented reported being full vaccinated (46%). Seven out of ten respondents (68%) that were either U.S. citizens or permanent residents reported being fully vaccinated. Booster uptake followed similar trends, with the highest proportion of respondents reporting a booster being those with a H-2A visa (48%) and the lowest proportion being those that are undocumented (20%). Vaccine uptake also varied by country of birth. Vaccination uptake was higher among respondents born in Mexico and Puerto Rico, 70% and 65% respectively, than respondents born in Haiti (53% fully vaccinated).

**Figure 4.4: Percentage of Respondents Fully Vaccinated and Boosted by Immigration Status**

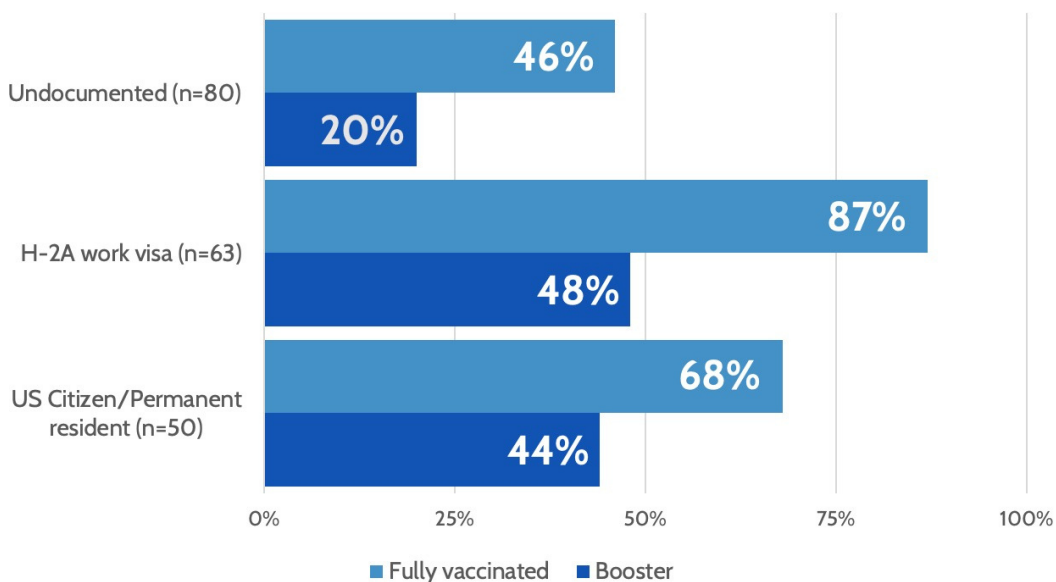
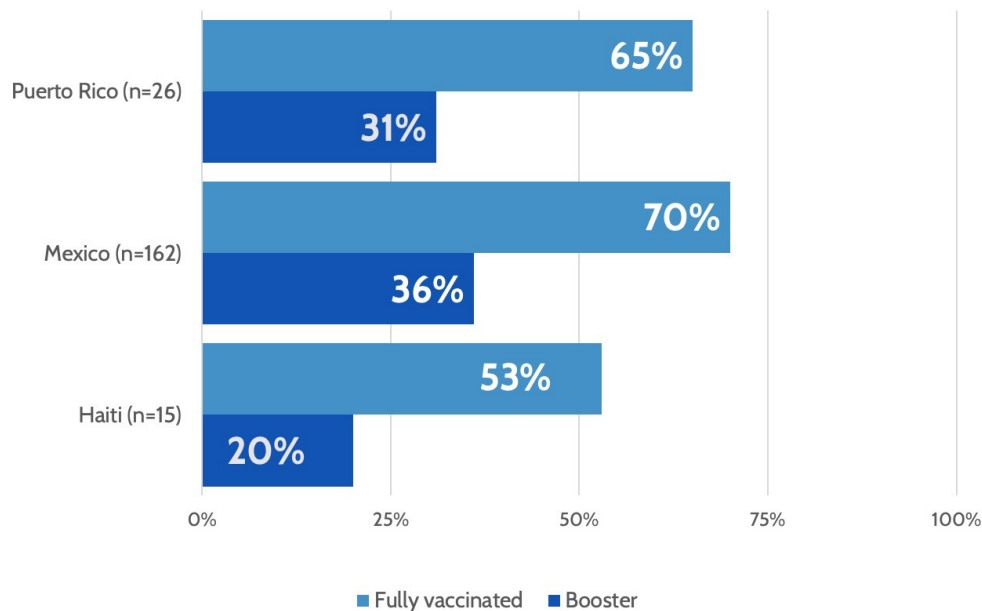


Figure 4.5: Percentage of Respondents Fully Vaccinated and Boosted by Country of Birth



## IMPACT OF COVID-19

Despite being designated “essential workers”, the pandemic had substantial economic and social impacts on farmworkers. Over a third of respondents reported reduced hours or income (41%), difficulties paying for basic needs (35%), and increased stress (37%) during the pandemic (see Table 4.6). Approximately one in four respondents (22%) lost their job at some point during the pandemic. Despite economic challenges, only 27% of respondents received government financial assistance, including 21% of respondents reporting receiving a stimulus check and 2% receiving food assistance.

In interviews, farmworkers discussed how work hours varied greatly over the pandemic. For some they experienced an increase in work hours especially working in crops during 2020. One farmworker describes, “Pues subieron las horas porque no había personal para trabajar, pues había que trabajar más los que no estuvieron contagiados.” (“Well they raised my hours because there weren’t enough people working, well I had to work more for those that were sick.”) However, others spoke about a reduction in hours, especially those working in ornamental agriculture (production of non-edible landscaping plants) that persists into 2022. A key theme across interviews was the pandemic’s negative impact on the region’s agricultural industry and how it disrupted the workforce. One farmworker pointed out that the failure of agricultural businesses, such as businesses that closed or reduce or change their operations, due to the pandemic continues to impact their own ability to find work and sufficient hours. Key informants also identified a shift in the region’s agricultural industry; one key informant explains, “a lot of our farms are selling off. So in the past two years, we’ve had [a] significant amount of farms that are selling to developers for neighborhoods, new construction homes so - I feel like our farmworker population is decreasing due to that.”



*Muchos negocios por la pandemia quebraron ya no les pueden distribuir. Tienen que buscar nuevos clientes. Esos nos afecta porque se ve reflejado en las ventas. En los pagos. En el periodo de trabajo, que serán de 10 a 12 horas, estamos trabajando por la mitad. La mitad de tiempo. En ese aspecto se ve afectado.”*

*Lots of businesses failed because of the pandemic and now they can't distribute. They have to find new clients. That affects us because it's reflected in the sales. In the pay. In the loss of work, it used to be 10-12 hours, now we're working half. Half the time. In that aspect it's affected.*

*- Farmworker*

**Table 4.7: Impact of COVID-19**

<b>Characteristic</b>	<b>Frequency (Percentage) N = 224</b>
<b>Experiences during the pandemic<sup>1</sup></b>	
Lost Job	50 (22%)
Reduction of hours or income	91 (41%)
Increased stress	83 (37%)
Divorced or separated	9 (4%)
Difficulty obtaining childcare or increased childcare expenses	14 (6%)
Difficulty paying basic needs	79 (35%)
Treated unfairly due to country of birth or race or ethnicity	15 (7%)
<b>Received U.S. government assistance<sup>2</sup></b>	61 (27%)
Economic stimulus check	48 (21%)
Food assistance	5 (2%)
Rental assistance	1 (<1%)

1. Respondents could choose more than one answer.

2. Respondents could choose more than one answer.



# 6. CONCLUSION

## LIMITATIONS

This assessment had limitations. Survey respondents were not randomly sampled. Survey respondents should not necessarily be viewed as a representative sample of all farmworkers in the counties, but rather as a diverse non-random sample that captures information from the very different populations of farmworkers in Atlantic and Cumberland Counties. All survey data are self-reported. The data in this assessment is cross-sectional and only represents a brief snapshot in time. While data collection occurred during the peak season of agriculture work in the counties, not every agricultural crop has the same timeline, and workers in those sectors may have been missed. In particular, the timing of this survey was towards the end of the blueberry season where the region receives a large influx of migratory workers. The survey is only available in English, Spanish, and Haitian Creole, this may have caused barriers in adequately capturing the responses from Mesoamerican Indigenous language speakers. Qualitative interviews with employers were not conducted in this community due to recruitment issues with non-response and loss to follow up.

## DISCUSSION

The results of this assessment demonstrate the necessity of continued support as it relates to housing and working conditions for farmworkers in Atlantic and Cumberland counties to support health care access and reduced risk of infectious disease. The farmworker population in Cumberland and Atlantic counties is a diverse, multinational, and highly migratory population making the delivery of services challenging. While the community organizations in the area champion the increased access to health care through mobile units and partnerships during the pandemic, more support is needed to continue providing care to all farmworkers and their families and to reach those specific farmworker groups, such as undocumented farmworkers and Indigenous farmworkers.

The proportion of respondents that were fully vaccinated (66%) was lower to county surveillance reports from the same time period in Atlantic County (78%), and similar in Cumberland County (63%).<sup>(18)</sup> Almost half of vaccinated respondents received their first dose either at a Community Health Center or at their work, a testament to the partnerships and collaborations of Health Centers, government agencies, and employers in the area. However, booster uptake among survey respondents (33%) was much lower than either county at the same time – 55% of adults in Cumberland had received the booster and 52% of adults in Atlantic County. This suggests that additional efforts are needed to reach farmworkers to provide easily accessible booster vaccines and education on boosters.

Although the majority of respondents reported receiving the full series of the COVID-19 vaccine, there are substantial disparities within the population. Respondents that were undocumented, Indigenous, or from Haiti had lower proportions of fully vaccinated respondents (45%, 53%, and 53% respectively). Booster uptake among these groups was also lower than other demographic groups. Respondents ages 18-24 also had a lower proportion of respondents that had received the booster than older age groups. Additional support and specific strategies are needed to reach these demographics of farmworkers in the area.

Survey results show almost a third (29%) of respondents are racially or linguistically Indigenous, however key informants suggest it is difficult to identify Indigenous farmworkers and provide appropriate services. Considering the low vaccination and booster uptake as well as the variety of Mesoamerican Indigenous languages reported in the sample, service providers in the area should consider investing in interpreters, multilingual education materials, and other culturally appropriate strategies to ensure Indigenous farmworkers have equitable access to vaccines and other health services.

## DISCUSSION CONTINUED

This assessment found additional challenges for service delivery in the area, including a highly migratory and diverse population. Seventy percent of respondents reported moving in the last 12 months for work, of which 60% were not H-2A workers, suggesting a large community of domestic migratory farmworkers. Stakeholder and key informants also pointed out the highly migratory and multinational community of farmworkers, which can lead to challenges with providing continuity of care, linguistically appropriate education and services, and timely services considering seasonality. Additionally, the survey found that 90% of respondents lived in employer-provided housing. If employers are willing to partner with service providers (such as some of the strategies for facilitating COVID-19 vaccines – mobile units and worksite vaccination clinics) this provides additional opportunity to increase access to services and will likely increase uptake of services.

The assessment also identified risks for infectious disease spread (including COVID-19) in the working and living conditions of farmworkers. Respondents live in crowded housing and share transportation, two risk factors for the spread of infectious disease. However, current regulations for employer-provided housing do not protect against overcrowding in the context of reducing infectious disease transmission, therefore employers may be following existing regulations and workers are still in crowded housing. Some local governments provided housing assistance programs during the pandemic to farmworkers and employers to mitigate spread of COVID-19. These programs should be studied and expanded. Additionally, only half of workers (56%) received a comprehensive safety training in their preferred language, a lower proportion than other FCCAs completed in 2022. Interview participants also identified significant issues with the systems set up to provide quarantine housing during the pandemic. As allocation of resources for COVID-19 mitigation and prevention declines, there is a substantial need for continued efforts and vigilance to address these working and living conditions, including availability of multilingual education and appropriate support services, to support farmworker health and prevent the spread of infectious disease.

As the regional agricultural industry responds to the long-lasting impact of the pandemic, it is critical that local stakeholders and service providers understand how those shifts impact the farmworker community and their livelihood. Additional focus and support are needed to provide culturally and linguistically appropriate services and education to a very diverse farmworker population that is highly migratory. Furthermore, stakeholders need additional funding and resources to continue to strengthen and expand partnerships and strategies that facilitated vaccines for farmworkers to improve access to boosters and general health care in the region.



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