NORTHEAST CENTER

FOR OCCUPATIONAL HEALTH AND SAFETY
AGRICULTURE, FORESTRY AND FISHING

Farmworker Needs Assessment
Executive Summary

The impact of COVID-19 on farmworker populations in the northeastern United States

607-547-6023
www.necenter.org

Submitted by:
Nicole Blanchard, Julie Sorensen, Anne Gadomski, Anna Meyerhoff, Jim Carrabba, Pauline Boyer, Christina Day, Jose Flores, Chelsea Theriault, Rebecca Meininger, Tristan VanValkenburgh
Bassett Healthcare Network
Cooperstown, NY 13326

April 2021

NORTHEAST CENTER

Mission Statement

The mission of the Northeast Center is to enhance the health of agricultural, forestry and fishing workers by identifying priority health and safety issues and working with agriculture, forestry and fishing communities and stakeholders to develop prevention solutions.

Summary

The Farmworker Needs Assessment survey conducted by the Northeast Center for Occupational Health and Safety provides helpful information for responding to future pandemic or public health crises. According to our survey results, a majority of Northeast farmworkers rely on the internet or their employer for preparedness training and personal protective equipment (PPE). Easy access to downloadable, agriculture specific informational materials may also be helpful for ensuring employers are providing accurate and up-to-date training information to their staff. Our survey indicates a high rate of personal compliance relating to COVID-19 related PPE usage. Reports of coworker compliance, however, were lower, which may point to the need for better employer enforcement of infection control measures. Additionally, compliance with mandates for social distancing appears to be problematic, pointing to the need for either improved education, enforcement or helpful recommendations on how to revise workshifts or worksites to ease compliance.

Most of our respondents reported living alone or with one other individual, and very few indicated they had a child under the age of 12 in the home. Nearly all respondents did state they were taking measures to limit COVID-19 infection in the home, although one quarter of the respondents had no plan for what to do if a household member was positive for the 2019 novel coronavirus. For those with a plan, most were looking to isolate the individual in a separate room or house. Questions regarding infection control practices in worker transporation indicated that most travel alone or with a few other people. For those traveling with others, attention to infection control practices was less than optimal. Focused community education on transport or development of easily implementable solutions seems warranted in relation to safer worker transport.

Access to healthcare has long been a concern for agricultural workers. Research from the Centers for Disease Control (CDC) suggests that individuals in rural communities, in general, are at a higher risk for unhealthy behaviors, have less access to healthcare and less access to healthy foods when compared to urban counterparts. Rural populations also appear to have a higher risk for chronic diseases (CDC, 2019). Some of the chronic diseases associated with rural populations are also considered high risk factors for severe reactions to COVID-19 (diabetes, high blood pressure, and asthma). According to the Northeast Center's Farmworker Needs Assessment, however, only 12% of respondents reported having high-risk conditions. Access to care did appear to be a problem for some participants. Many respondents indicated concerns about contracting COVID-19 at a medical facility, an additional barrier to care. This may be an important target for future pandemic control communications. Fortunately, telemedicine does seem to be a viable and acceptable solution for many respondents, underscoring the need for incentivizing hospitals to invest in systems and technology improvements to facilitate telemedicine consults.

While much of the discussion around the impacts of the coronavirus pandemic has focused on physical health, its impact on the mental health has increasingly been noted. Worldwide, health researchers have noted an increase in stress, depression, anxiety, and substance abuse (CDC, 2020e). Results of the Farmworker Needs Asssessment demonstrate mental health concerns and substance abuse are likely an important target for health interventions in farmworker communities. In particular, a high percentage of respondents (93%) noted an increase in community members who were verbally or physically abusive to members of their own household since the pandemic started. Future research should evaluate barriers to receiving mental health or substance abuse counseling services and developing effective methods for expanding access to these services in farmworker communities.

Financial constraints were also reflected in this study. Almost half of the respondents who answered this question were worried about not getting enough work hours, and 21% were concerned about not having

enough income to pay bills. Given this, investments in improving access to social programs that provide cost of living assistance at times of crises or assessments of workers access to programs like the Paycheck Protection Program is likely warranted.

In addition to the Northeast Center's survey, there have been several other surveys conducted to assess the impact of COVID-19 in farm and ranch communities. These include the Center for Agricultural Development and Entrepreneurship, the Cornell Agricultural Workforce Development Program, as well as Farm Bureau surveys to name just a few. However, many of these surveys were focused on the farm owners. One exception to this is the Cornell Farmworker Program, which conducted interviews with farmworkers. Findings of these surveys can be found on their organizations' websites.

Introduction

Farmworkers are a vulnerable population given exposures to occupational hazards, as well as various social, environmental, and economic factors that can limit access to healthcare and social services (Flocks et al, 2018). Several stressors that have been associated with migrant and seasonal agricultural workers include: poverty, unsafe housing, limited access to clean water, septic systems, lack of insurance, cultural/ language barriers, and lack of transportation (RHIhub, 2018). In the interest of understanding the impact of COVID-19 on these vulnerable workers and to improve COVID-19 prevention efforts, the Northeast Center for Occupational Health and Safety in Agriculture, Forestry and Fishing collaborated with the Western Center for Agricultural Health and Safety to conduct regional surveys with farmers on the West Coast and in the Northeast.

The COVID-19 Farmworker Study (http://covid19farmworkerstudy.org/preliminary-data/), a 60-question survey, was originally developed by the Western Center and regional stakeholders on the West Coast to collect information on COVID-19 infection control practices, training, access to healthcare and knowledge of infection control practices. This survey included 900 farm workers in CA, WA and OR and was conducted from May to July 2020. COVID-19 Farmworker Study results from California showed that 54% respondents cited costs, lack of insurance, and/or lack of sick leave as factors preventing them from accessing healthcare when they were ill (COFS, 2020).

To assess the impact of COVID-19 with farmworker populations in the Northeast, the Western Center COFS survey instrument was pilot-tested and reviewed by local stakeholders in the Northeast to ensure that questions were locally relevant. Some questions were removed, several new questions were added and some questions were adjusted to create the Northeast Center's Farmworker Needs Assessment, a 60 question survey. The objective of the survey was to develop a better understanding of what went well and what did not go well in the COVID-19 pandemic response. The information would thus be used to inform policymakers, medical institutions and agricultural stakeholders on how to better assist this essential workforce in future.

Methodology

The survey for the Farmworker Needs Assessmentwas revised using the Centers for Medicare & Medicaid Services Accountable Health Communities Health-Related Social Needs Screening Tool (CMS, 2019) as a framework for questions and topics. Dissemination of the survey was conducted using multiple points of contact, such as phone interviews, in-person interviews, letters and a mobile-friendly web link. The English version of the survey was translated into Spanish and Haitian to increase farmworker access to the survey. The survey included questions on demographic information, infection control training, infection control adjustments to the worksite, transportation, housing and access to medical care, as well as other questions

relevant to the pandemic. Survey information was collected anonymously to inspire more transparent responses. All questions in the survey were optional. For individuals interested in participating, respondent phone numbers were entered into a raffle of six $100 gift cards.

Convenience sampling was utilized by distributing the survey to farmworkers in Maine, Vermont, New Hampshire, Massachusetts, New York, Rhode Island, Pennsylvania, New Jersey, Maryland, Delaware, West Virginia, and Connecticut. Surveys were collected from July 2020 to December 2020. The survey link was distributed by multiple organizations including cooperative extensions, state farm bureaus, the migrant clinician's network, the Western NY Dairy Crops and Livestock team, Agriplacement services, and numerous agriculture publications. A list of farms employing H-2A agricultural workers was populated through an online database available through the U.S. Department of Labor (Department of Labor, n.d.). Farm workers contacted by phone were given several options for completing the survey (phone, mail, or web link) and language assistance (English or Spanish). All those requesting a paper copy were sent one with a postage paid return envelope. The online survey link was also distributed through email listservs and online publications. For those receiving the online link, the Northeast Center's toll-free phone number was provided to give participants the option of receiving assistance completing the survey over the phone. Data was entered directly into a RedCap database for those using the emailed survey link. Data was edited and entered into the RedCap database for those survey respondents who completed the paper version of the survey.

Demographics of Respondents

Surveys were completed by 102 respondents. Fifty surveys were completed in Spanish, 52 in English and 0 in Haitian. The average age of respondents was 30.35 years and most were male (Male: 69%, Female: 28%, Other: 2%). Most respondents reported being born in either the United States (49%) or Mexico (42%), as shown in Figure 1. Regarding marital status, a large percentage (79%) reported themselves as married or living with a partner but not married (Figure 2).

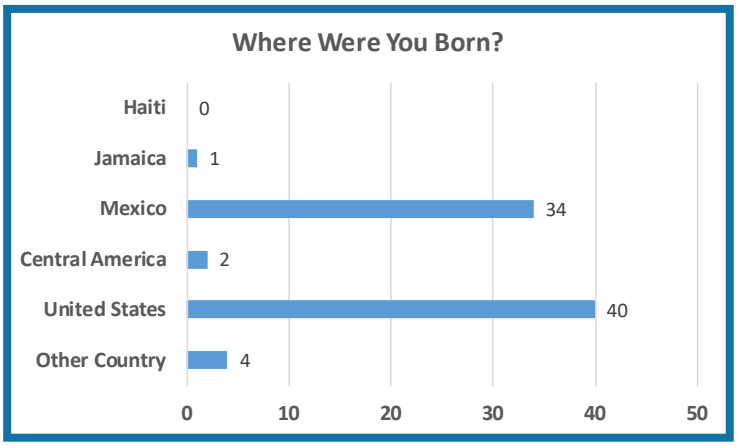

Figure 1: Birth Location

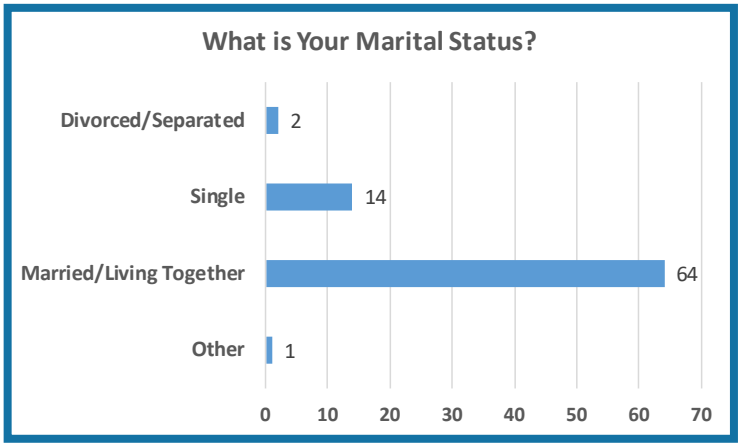

Figure 2: Marital Status

From March 2020 to December 2020, 81 respondents reported working on a farm (dairy, fruit, livestock, or vegetable), in a packinghouse, greenhouse, or other agricultural operation (see Table 1). Twenty-one of the respondents did not report the commodity they were employed in during the pandemic.

Industry	Frequency
Dairy	6
Dairy, Fruit	1
Dairy, Livestock	1
Dairy, Other	1
Dairy, Vegetable	1
Fruit	11
Fruit, Packinghouse	3
Greenhouse	5
Greenhouse, Other	8
Livestock	1
Other	16
Packinghouse	1
Packinghouse, Other	2
Vegetable	4
Vegetable, Fruit	4
Vegetable, Fruit, Greenhouse	2
Vegetable, Fruit, Livestock, Greenhouse	2
Vegetable, Fruit, Other	2
Vegetable, Fruit, Packinghouse	1
Vegetable, Greenhouse	1
Vegetable, Livestock, Other	1
Vegetable, Other	6
Vegetable, Packinghouse	1
(blank)	21
Total	**102**

Table 1: Industry

The image below provides an overview of the distribution of respondent work location by county. While the survey was focused on the northeastern part of the country, most of the farmworkers who completed the survey worked on agricultural operations in New York state.

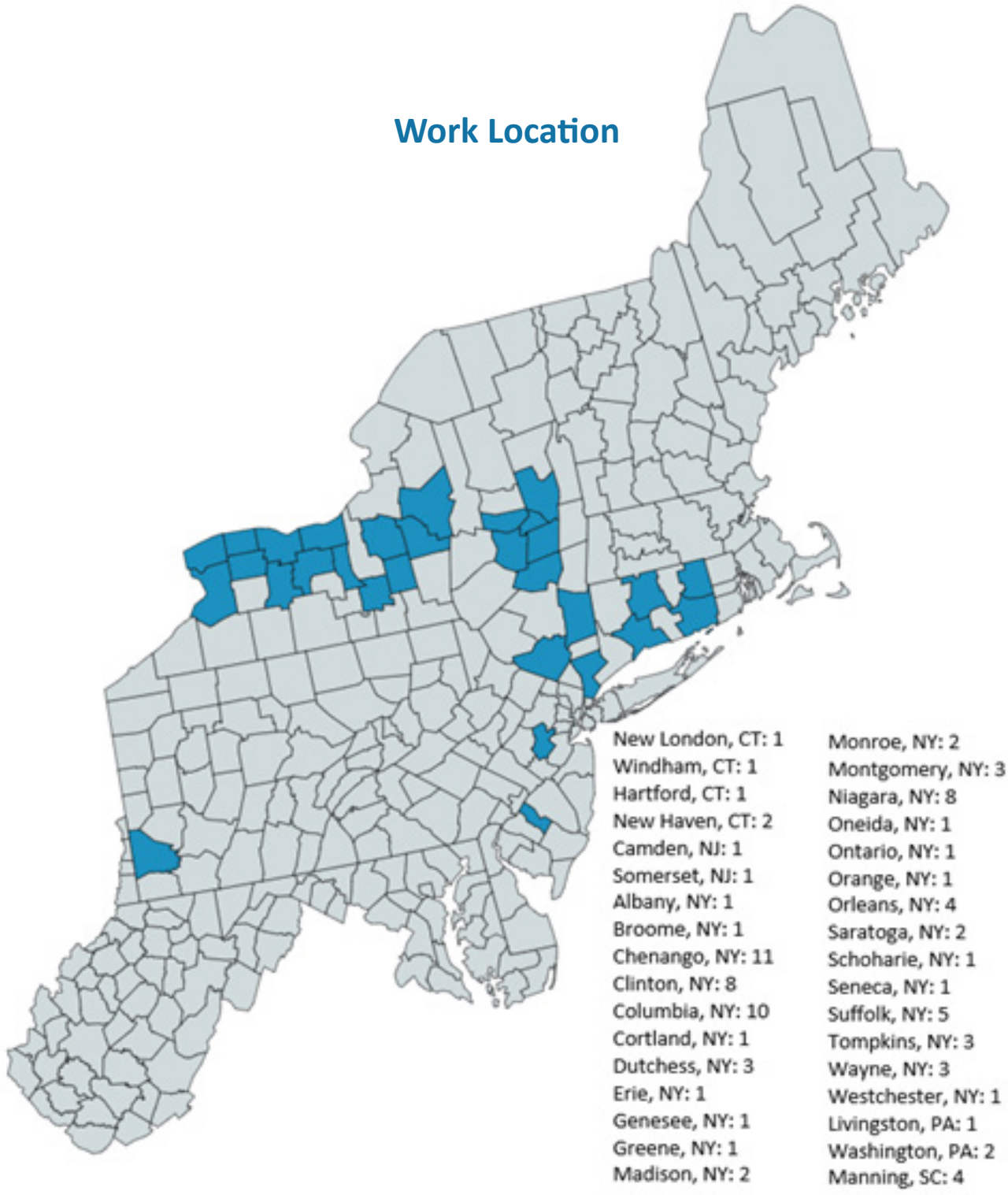

Figure 3: Work Location

Worksite COVID-19 Infection Control Preparedness

The respondents were asked to answer questions on worksite infection control preparedness for COVID-19. In particular, questions were focused on the changes to potential areas of high transmission and infection mitigation tools utilized on the worksite.

Social Distancing

Per the Centers for Disease Control and Prevention (CDC) guidance, social distancing is a primary method of prevention for the spread of COVID-19. It is recommended that individuals limit prolonged, close contact, ensuring 6 feet of distance from others (CDC, 2020a). Respondent data revealed that 82% have one or more individuals that typically work within 6 feet (1.5 meters) of them; however, 78% also reported they can practice social distancing "Always" or "Most of the Time" (Figure 4).

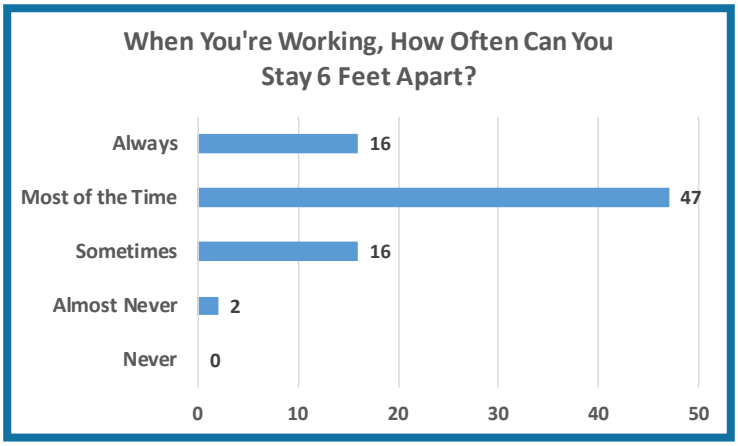

Figure 4: Social Distancing

Of those individuals, most of the worksites (65%) had only one shift during the workday (Table 2).

Value	Frequency	Percent
0	11	11.3%
1	12	12.4%
2	24	24.7%
3	9	9.3%
4	8	8.2%
5 or more	14	14.4%
Blank	19	19.6%
Total	**97**	**100%**

Table 2: Social Distancing

These results suggest that there may be a need to increase the number of work shifts or evaluate methods for improving social distancing where the industry and location may permit. Training and enforcement of social distancing rules may also be helpful targets for farm managers or owners.

Restroom Facilities

Restrooms are a concern for transmission of coronavirus as they are highly trafficked, often communally shared facilities. Many respondents reported few changes to the number of restrooms or condition of the facilities since the pandemic began; 59% stated there were one to two bathrooms available to them. Regardless of the number of restroom facilities, respondents indicated they were washing their hands frequently as well as utilizing hand sanitizer (Figures 5 and 6).

Figure 5: Wash Hands

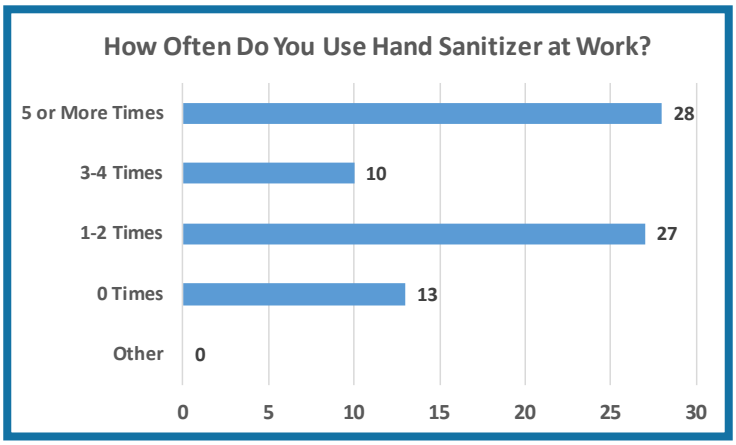

Figure 6: Hand Sanitizer

Personal Protective Equipment for COVID-19 Prevention

The CDC recommends that the best methods for limiting the spread of COVID-19 are the utilization of face coverings, social distancing, increased handwashing, and frequent use of hand sanitizer (CDC, 2020b). High compliance with the utilization of PPE is especially important in those situations where social distancing is not possible. Survey results indicate that most farm employers provided PPE to their employees, with only a few respondents reporting they had not received PPE through their employer (Figure 7). Respondents also indicated that most employers provided hand sanitizer and cloth face coverings to their staff with high compliance from coworkers in using PPE (Figures 8 and 9).

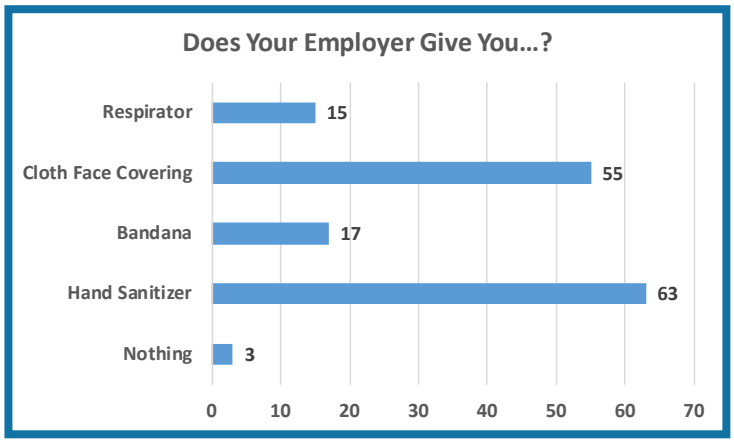

Figure 7: Employer PPE

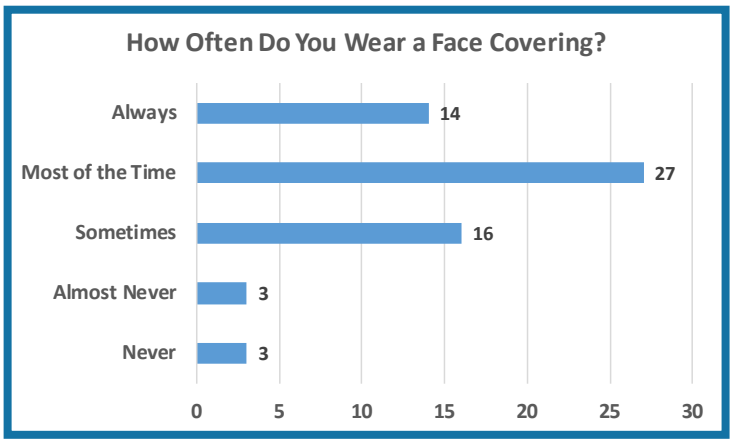

Figure 8: Frequency of Face Covering

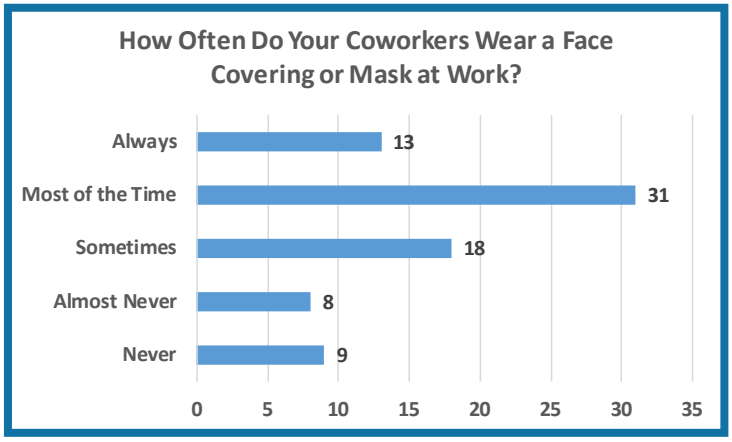

Figure 9: Coworker Face Covering

Training

Training regarding COVID-19 and how it is transmitted ensures that staff have a clear understanding of the dangers of the virus and the prevention techniques for keeping themselves and coworkers safe from infection. When asked, 95% of respondents reported that they knew what COVID-19 is, and 98% knew how the virus is transmitted. Nearly all respondents reported some sort of employee training (Figure 10). Most trainings seemed to come from their employer or from an information sheet provided by the employer (Figure 11).

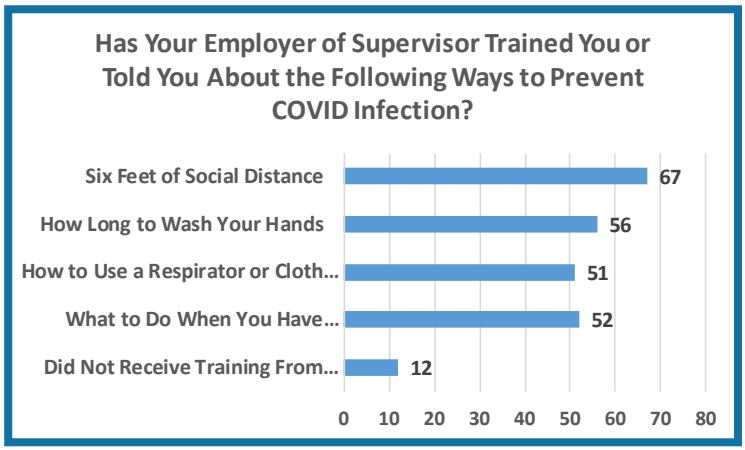

Figure 10: Employer Training

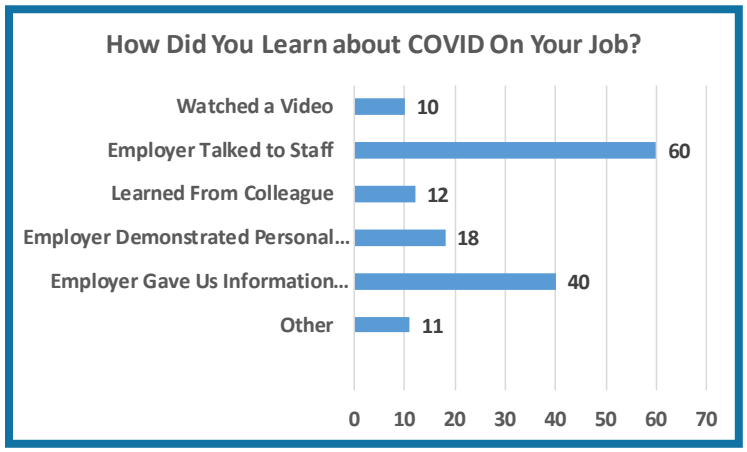

Figure 11: Coronavirus Information Source

Respondents were also asked to identify where they go to receive reliable health information outside of their workplace training. The results were varied (Figure 12). Most respondents sought information from the internet, which could possibly be of concern as not all internet sites provide accurate or up-to-date information. However, these results also point to the importance of the internet as a source for information distribution for this population.

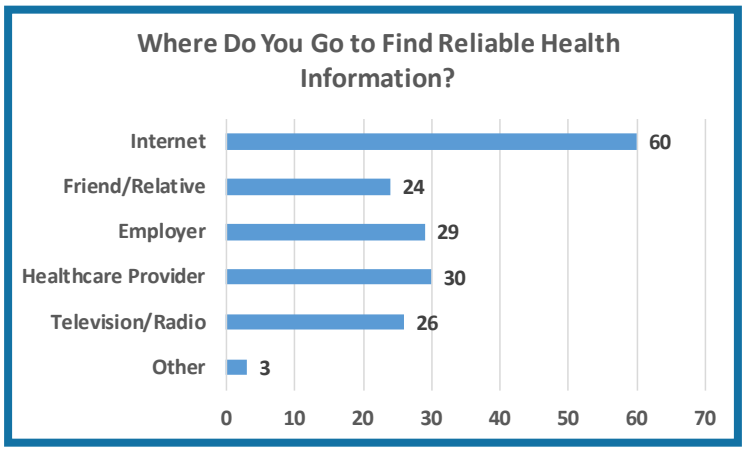

Figure 12: Reliable Health Information Source

Transportation

Transportation to a worksites is a particular point of concern for COVID-19 prevention efforts. When transporting to and from a worksite, individuals may have limited social distancing options and difficulty avoiding high-touch surfaces and practicing appropriate hand hygiene. Respondents were questioned about their method of transport and with whom they travel to assess potential sources of COVID-19 exposure. About half (47%) reported traveling to work in a car (Figure 13). Of those who travelled to work in a vehicle, 36% reported doing so without other passengers (42% did not reply; Table 3). For those who travel with passengers, the wearing of face masks and the disinfecting of the vehicle showed room for improvement. More than 50% of respondents answering the question regarding use of cloth face coverings in a vehicle indicated that face coverings were not always used during transport (Figure 14). Similar results were found regarding disinfecting vehicles before taking on passengers (Figure 15). It is important to note that almost one half of the respondents did not answer the question regarding how many people they travel work with.

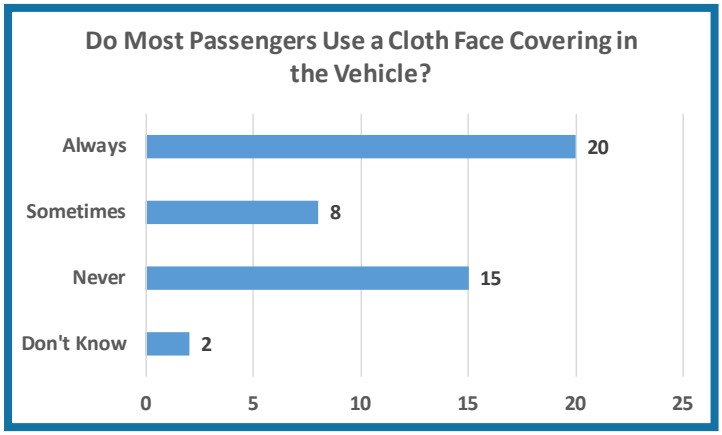

Figure 13: Passenger Face Covering

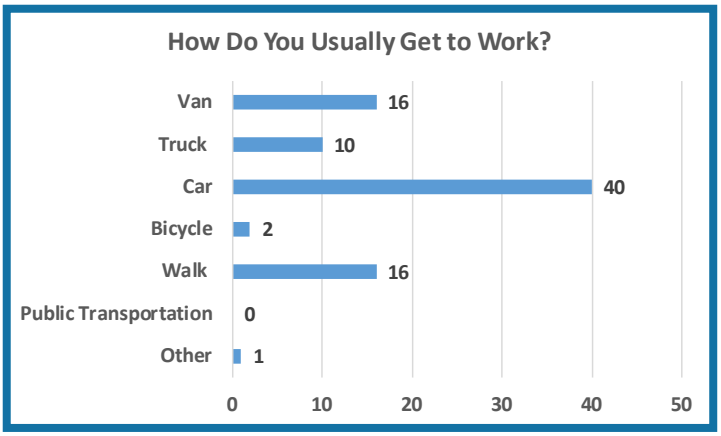

Figure 14: Method of Transportation

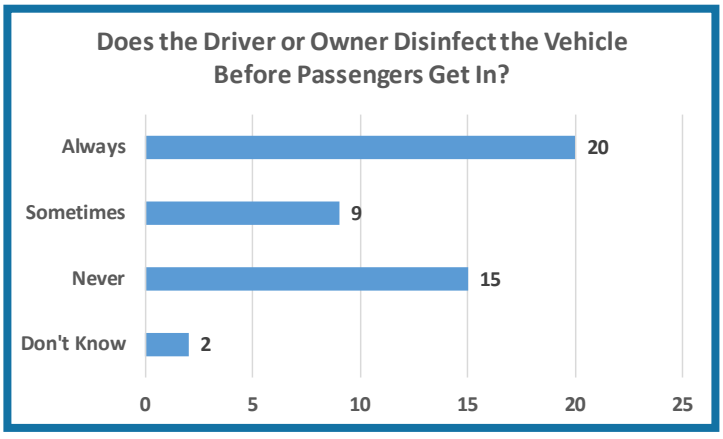

Figure 15: Frequency of Driver Disinfecting Vehicle

About how many other people travel to work in the same vehicle with you?

Value	Frequency	Percent
0	35	36.1%
1	5	5.2%
2	15	15.5%
3	1	1.0%
Blank	41	42.3%
Total	97	100%

Table 3: Number of People Traveling in Same Vehicle

COVID-19 Exposure

Exposure to COVID-19 positive individuals is a particular concern for essential workers, who often do not have the option of working from home and avoiding worksite exposures. However, when asked if workers had traveled or worked with an individual showing signs of illness or a cough, 97% stated “No”. Respondents were also asked if they had traveled to a “hot spot” for coronavirus such as New York City; 88% indicated they had not (Don’t know 3%, Yes 9%).

Looking at community prevalence, we were particularly concerned about potential barriers to addressing medical concerns and farmworkers’ ability to quarantine when exhibiting signs of COVID-19 or testing positive. Of the 57 who answered, only six believed they had been infected with the virus. Four of those individuals knew where to be tested, and two of the four did get tested (zero positive COVID-19 results).

Childcare

Childcare is another area of concern when considering the spread of coronavirus. Lack of access to childcare can place a strain on the household, inhibit farmworkers’ ability to work and increase all household members’ risk of disease exposure. Respondents were asked to describe their childcare situation to evaluate the degree of risk. While most did not report having children under the age of 12 years living with them, 15% stated they have one or more children in their home (Table 4). Nearly all reported they had no issues finding childcare during the pandemic (No-23, Yes-1).

How many children under the age of 12 live with you?

Value	Frequency	Percent
0	76	78.4%
1	7	7.2%
2 or more	7	7.8%

Table 4: Number of Children in Home

For those with children, the survey asked who took care of their children while they were at work. As shown in Figure 16, the largest response group stated they left their children at home with a spouse, friend, or relative (50%).

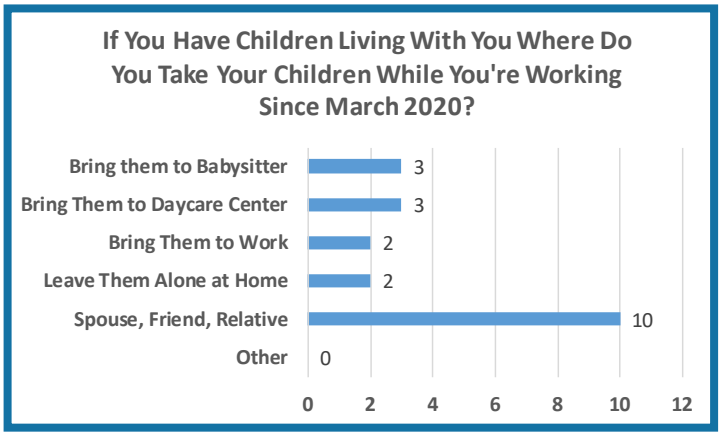

Figure 16: Childcare

Worker Housing

Evaluating the preparedness of workers' housing for a positive coronavirus case is a concern. Where protective measures may not be in place or available, housing leaves many vulnerable to exposure in their own home where protective measures may not be in place or available. Having a plan for what to do when a household contact does become positive can ensure that others in the household are not infected. In regards to housing, of those that responded, 44% of the individuals lived with 1 or more adults (Table 5).

How many adults live with you?

Value	Frequency	Percent
0	52	54.2%
1	26	27.1%
2	5	5.2%
3	7	7.3%
4 or more	3	3.2%

Table 5: Number of Adults Living in Home

When asked to report if changes to the number of individuals living in their housing had been made, 96% of respondents reported no change (Figure 17).

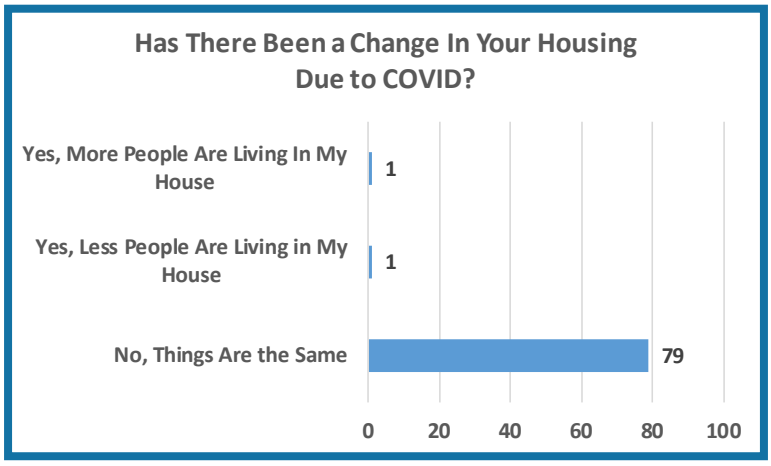

Figure 17: Housing changes

Certain precautions can be taken to reduce the risk of bringing coronavirus into housing from the worksite. Nearly all respondents indicated they took actions to protect the individuals with whomthey live from coronavirus exposure that may have occurred on the worksite. Outside of the set answers listed in Figure 18, there were nine individuals who provided a free text response to the "other" options. Other responses included: increased cleaning of the home with disinfectant, nothing due to living alone, and nothing due to a disbelief in COVID-19 being real.

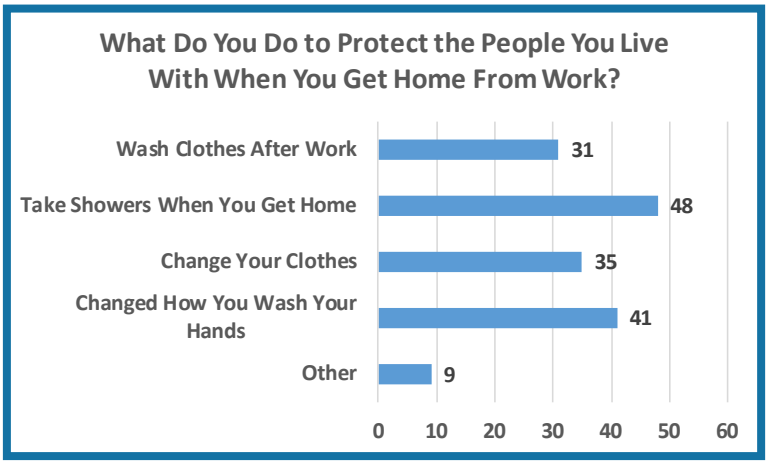

Figure 18: Protective Measures When Home From Work

Preparing for the possibility of a household member contracting the coronavirus is an essential step in infection control. When asked about what plans are in place, most respondents stated they had a separate room for COVID positive residents to live in (Figure 19). When living with a COVID-19 positive individual, the CDC recommends isolating the individual in separate housing or a separate room (CDC, 2020c). Unfortunately, as many as one-fourth of the respondents had no plan in place to address a COVID positive household member.

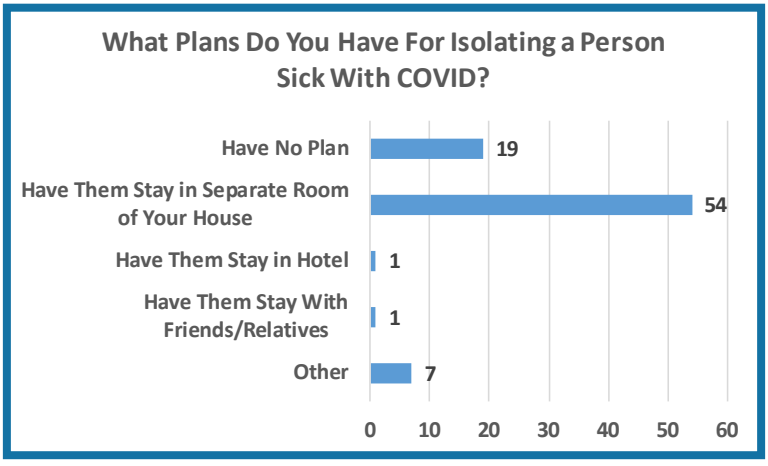

Figure 19: Isolation Plans

Healthcare

The migrant population often lacks easy access to healthcare, making them especially vulnerable population in a pandemic, especially in rural areas. Rural populations have numerous health disparities that include limited access to healthcare, limited transportation, limited access to healthy foods, lowered income, lower level of education, and a trend of unhealthy behaviors leading to conditions such as hypertension and obesity (CDC, 2019). The survey evaluated access to care and health information, and measured some vulnerabilities related to the pandemic.

Access to care

When asked about what would prevent the respondent from seeking medical attention during the pandemic there were a varied number of responses. About half of respondents indicated a fear of getting the coronavirus in the hospital or clinic as a primary reason for not seeking healthcare (Figure 20). Responses to the "Other" category included: "nothing" (2) and a "disbelief in the coronavirus" (1).

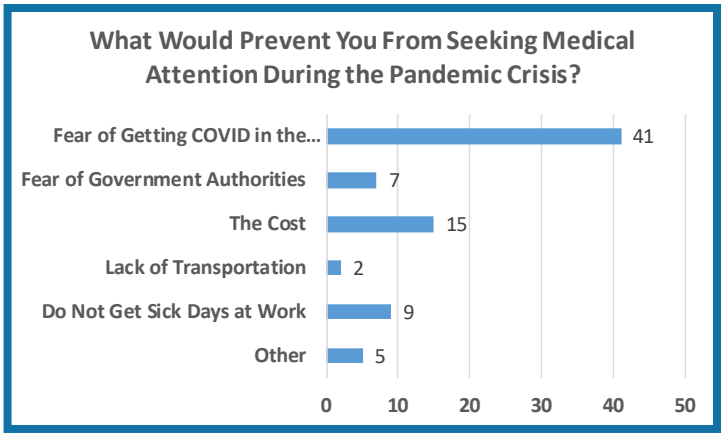

Figure 20: Barriers to Seeking Care

Telemedicine

Telemedicine utilizes the internet and/or telephone to provide patients with medical consultation services in their own home. In the midst of the coronavirus pandemic, telemedicine provides an opportunity to seek care without fear of exposure while eliminating many of the more common barriers to care. Seventy-five percent of the survey respondents stated they had utilized telemedicine in the past. When asked about their willingness to try telemedicine in the future, a large percent (82%) of respondents were receptive to the idea (Yes – 65, No – 14). Regarding the technology needed to participate in telemedicine, most (73%) reported having access to the internet either on a computer with a web camera, a cell phone or a tablet. Only 5% of the individuals willing to utilize telemedicine stated they did not have access to the necessary technology.

The large degree of acceptance to telemedicine consults is encouraging in this population as it suggests that by adding connectivity options and increasing access to devices may further improve timely access to care, ensure follow-up and potentially limit other household exposure to COVID-19 and other communicable disease in the future.

At-Risk Conditions

The CDC has noted that the following conditions cause an individual to be at a higher risk for a severe illness from COVID-19: diabetes, high blood pressure/hypertension, kidney disease and asthma (CDC, 2020d). Among respondents, 13% reported having one of these high-risk conditions, however none reported difficulty finding treatment for these conditions.

Other topics

Finance

Financial instability is a main component in social determinants of health considerations, as it can affect food, housing, access to healthcare, education and mental health (Healthy People 2030, 2020). Given the economic impact of the pandemic, respondents were asked to describe their financial situation since the pandemic began. Of the respondents, 21% reported not having enough income to pay their bills or other expenses and 49% were worried about not getting enough hours to work (Figures 21 and 22). These results point to the need to link those in need of financial assistance to community resources and services.

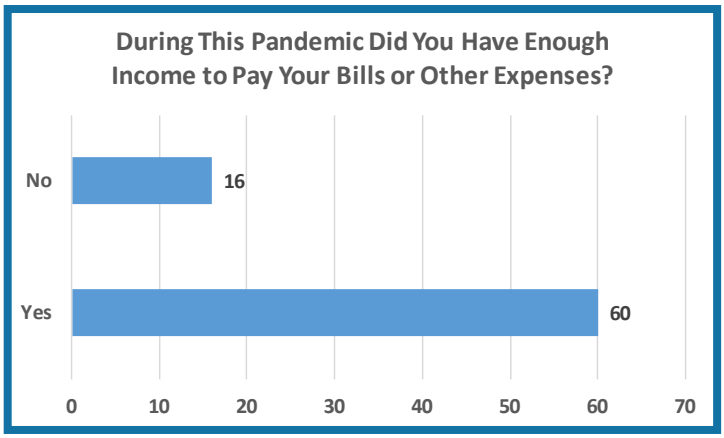

Figure 21: Paying Bills during Pandemic

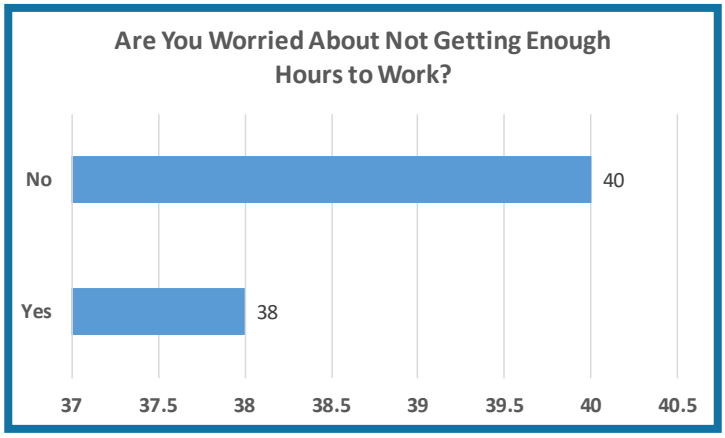

Figure 22: Work Hours during Pandemic

Mental Health

Another primary focus when examining social determinants of health and the impact of the pandemic is mental health. Stress can lead to a number of health concerns, such as depression and anxiety. These can in turn lead to substance abuse, suicide and domestic abuse. Several questions were asked to evaluate the mental health of the farmworker community. Based on the survey responses, mental health issues are a point of concern in respondent communities.

When asked if depression and hopelessness have been seen in the community, 44% reported "Yes" (Figure 23). About half of respondents (54%) noted an increase of community members seeming anxious, restless and nervous due to the pandemic (Figure 24). Alcohol and illegal substance abuse issues in respondents' communities were also noted, with 24% indicating they had seen an increase in substance use. Most concerning was the high percentage of respondents (93%) who noted community members who were verbally or physically abusive to household members since the pandemic started (Figure 25). These results underscore the need for access to mental health providers, domestic violence services and substance abuse programs.

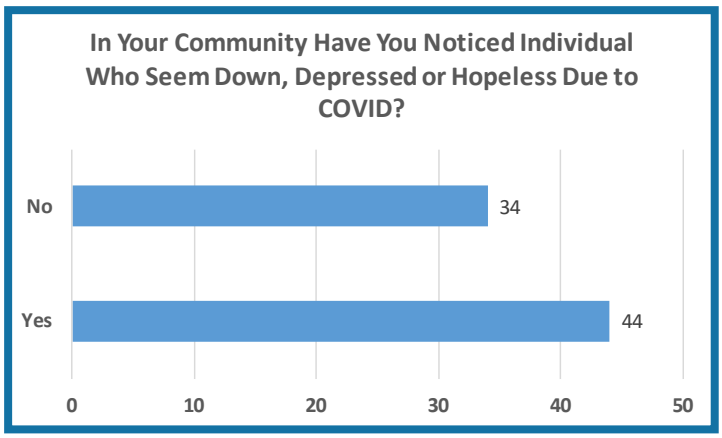

Figure 23: Community Depression

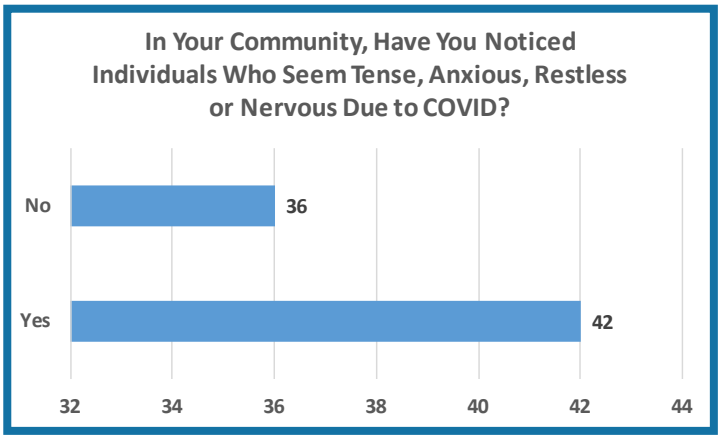

Figure 24: Community Anxiety

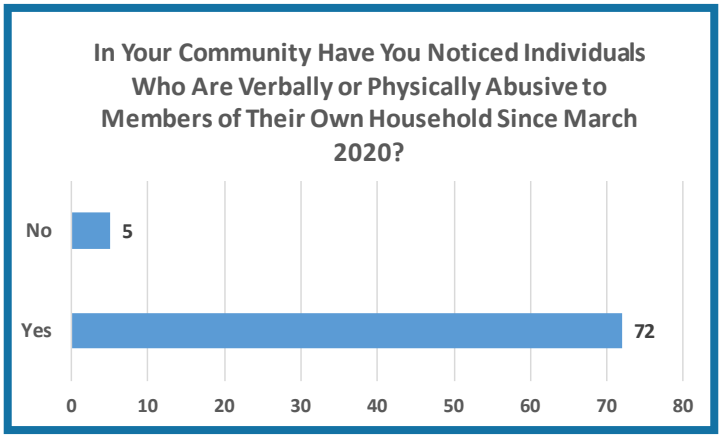

Figure 25: Community Abuse

Limitations

Because sampling options for this study were limited, convenience sampling was utilized which introduces the potential for sampling bias. Sampling bias affects the generalizability of results as some members of the population are likely to have a higher or lower probably of seeing and completing the survey than others. In addition, the target population may have been less inclined to fill out answers regarding personal beliefs and choices due to fear or cultural concerns.It is important to note that some questions received more responses than others. As indicated previously, although the survey link was distributed to multiple organizations and publications throughout the Northeast, most survey participants were from the state of New York, thus limiting generalizability to other states in the Northeast. Lastly, although the Northeast Center attempted to increase survey participation by offering a raffle for six $100 gift cards, the number of respondents was limited (n=102). In addition, denominator data is very difficult to capture for farmworker populations, and distributing the survey by online links made it difficult to ascertain who received the survey and who did not. As a result, we were not able to calculate a response rate for the survey.

Acknowledgments

We would like to acknowledge the assistance of several individuals whose assistance was integral to the Farmworker Needs Assessment survey process: Rich Stup of the Cornell Agricultural Workforce Development program; Julie Suarez, Associate Dean of the Cornell Office of Land Grant Affairs; Lauren Melodia, Value Chain Manager at the Center for Agricultural Development & Entrepreneurship; Amy Liebman, Director of the Eastern Region Office for the Migrant Clinicians Network; and Elizabeth Marshal, Associate Professor in the Department of Biostatistics and Epidemiology at the Rutgers School of Public Health. We would also like to acknowledge the agricultural workers who agreed to participate in the survey. Special thanks to Cooperative Extension personnel and state Farm Bureaus who assisted with survey distribution.

References

Flocks, J., Tovar, J.A., Economos, E., Thien Mac, V.V., Mutic, A., Peterman, K., ... McCauley, L. (2018). Lessons Learned from Data Collection as Health Screening in Underserved Farmworker Communities. Progress in Community Health Partnerships: Research, Education, and Action 12(1), 93-100. doi:10.1353/cpr.2018.0024.

RHIhub. (2018). Rural Migrant Health. https://www.ruralhealthinfo.org/topics/migrant-health

COFS. (2020). Preliminary Data Brief. http://covid19farmworkerstudy.org/survey/wp-content/uploads/2020/08/EN-COFS-Preliminary-Data-Brief_FINAL.pdf

Centers for Medicare & Medicaid Services. (2019). CMS Accountable Health Communities Health-Related Social needs Screening Tool. https://innovation.cms.gov/files/worksheets/ahcm-screeningtool.pdf

Department of Labor. (n.d.). Out-of-State-H-2A Agricultural Job Openings. https://labor.ny.gov/careerservices/h2a-orders-out-of-state.shtm

CDC. (2020a). Social Distancing. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html

CDC. (2020b). Prevent Getting Sick. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/index.html

CDC. (2020c). Households Living in Close Quarters. https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/living-in-close-quarters.html

CDC. (2019). Rural Health Preventing Chronic Diseases and Promoting Health in Rural Communities. https://www.cdc.gov/chronicdisease/resources/publications/factsheets/rural-health.htm

CDC. (2020d). People with Certain Medical Conditions. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html

Healthy People 2030. (2020). Economic Stability. https://health.gov/healthypeople/objectives-and-data/browse-objectives/economic-stability

CDC. (2020e). Coping with Stress. https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/managing-stress-anxiety.html