# Communication Planning to Address Access and Functional Needs of Farmworkers during Emergencies





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Farmworkers are an integral part of many communities and are essential workers who maintain the food supply in the U.S.<sup>1</sup> Farmworkers are also a population at greater risk during emergencies and may require additional assistance to address multiple and overlapping access and functional needs that limit their ability to access and understand risk information, receive public services, and implement recommended actions to protect themselves and their families during an emergency.<sup>2,3</sup>

This document is based on the CDC's Access and Functional Needs Toolkit: Integrating a Community Partner Network to Inform Risk Communication Strategies, and provides practical recommendations and resources relevant to farmworker communities for public health departments, emergency management officials, and organizations to incorporate those communities in their risk communication plan and activities before, during, and after an emergency, as part of a "whole community" preparedness and response strategy.

#### WHO ARE FARMWORKERS?

Farmworkers are individuals whose principal employment is in agriculture, and include crop, livestock, and agricultural products processing workers.<sup>5</sup> There are an estimated 2.5 million farmworkers employed in the U.S.6.7Although most farmworkers speak Spanish and were born in Mexico, farmworker communities are very diverse, and many originate from other countries like Haiti, Jamaica, South Africa, Honduras, Guatemala, or El Salvador.<sup>7</sup> An increasing number of farmworkers also originate from Mesoamerican Indigenous communities and speak languages other than English or Spanish, such as Nahuatl, Mixtec, and Mam.<sup>8,9</sup> Although most farmworkers are settled, a significant number are migratory (i.e., travel throughout the U.S. for work), and a growing number (over 298,000 in 2022) are recruited by farm employers to the U.S. from Mexico and other countries on a seasonal basis with H-2A temporary visas.<sup>10</sup> Farmworkers were recognized as essential workers during the COVID-19 pandemic as they labored during lock-downs to ensure a continued food supply.<sup>11</sup> Farmworkers experience multiple compounding access and functional needs that are exacerbated during emergencies and create barriers to accessing health and social services and information (Table 1).<sup>7</sup>

Table 1. Farmworkers' barriers to access and functional needs during emergencies

Table 1. Farmworkers' barriers to access and functional needs during emergencies	
Communication	<ul> <li>Limited English proficiency, diversity of languages spoken 7,13</li> <li>Low education levels and low literacy, even in their native language; higher emphasis on oral forms of communication 7,14</li> <li>Cultural perspectives that may differ from mainstream U.S. culture</li> <li>Limited access to the internet 15</li> </ul>
Maintaining health	<ul> <li>High prevalence of chronic health conditions 16,17</li> <li>Low health insurance coverage and limited access to health care 18,19</li> <li>Live disproportionately in housing of poor condition, and have high rates of overcrowding and low rates of homeownership 20,21</li> </ul>
Safety, support, self- determination	<ul> <li>High levels of distress and lack of autonomy because of immigration status issues 22,23</li> <li>Essential workers: may be required to continue working during an emergency 24</li> <li>Limited labor rights and high frequency of labor abuses, including human trafficking 25</li> <li>Lack of familiarity with their rights during and after an emergency 2,3</li> <li>Limited understanding of how the emergency system and emergency services work in the U.S. 26,27</li> <li>High rates of poverty 28</li> <li>High mobility for work, both within the U.S. and long-distance international travel 29,30</li> </ul>
Transportation	<ul> <li>Do not own or have access to a personal vehicle 31</li> <li>Lack of U.S. driver license 32,33</li> <li>Live in rural, isolated areas with lack of public transportation options 34</li> <li>Live in temporary residence 35</li> </ul>

## STRATEGIES FOR INTEGRATING FARMWORKERS IN EMERGENCY MANAGEMENT POLICIES AND PRACTICES

#### STEP 1: IDENTIFY AND ENGAGE FARMWORKER COMMUNITY PARTNERS

This section provides resources to assist in identifying and integrating organizations representing or serving farmworkers to be included in the whole community outreach information network (hereafter, "partner network") for emergency risk communications and preparedness planning in a geographic area.

The key to successful outreach to farmworkers is to identify partners who have built trust with farmworkers in your community, can offer services and support during an emergency, and who can play an active role in your emergency response plan. Keep in mind that organizations that serve farmworkers might be under-resourced and under-staffed, so building relationships will take time and consistent effort on your part and may require continued technical and resources support.

The tools below can be used to identify partner organizations in your area and help you find resources and disseminate information for the farmworker population.

- <u>Farmworker-Serving Organizations</u>: This web page from the National Center for Farmworker Health (NCFH) offers a list of community-based organizations whose primary mission is to serve farmworkers and their families.
- <u>Migrant Education Program Offices:</u> This interactive map provides State Program Contacts and regional representatives for Migrant Education.
- <u>Migrant and Seasonal Head Start Office</u>s: This interactive map allows you to locate a Migrant and Seasonal Head Start program near you.
- <u>Farmworker Legal Aid Services Directory</u>: This list provides information about where to find legal services in states across the country.
- <u>National Farmworker Jobs Program Offices</u>: This web page from the U.S. Department of Labor has
  information about the National Farmworker Jobs Program (NFJP) and allows you to view programs in your
  area.
- <u>Migrant Health Center Map:</u> This interactive map identifies community clinics through the United States that receive federal funding to serve migratory and seasonal farmworkers (migrant health centers), along with their location and contact information.
- Foreign consulates in the US for farmworkers' countries of birth. For example, <u>Mexican Consulates</u>, <u>Haitian consulate offices</u>, <u>Guatemala</u>, <u>Honduras</u>, and <u>El Salvador</u>. Keep in mind that these are generally located in large urban areas, although some use mobile units to provide services to rural areas.
- <u>Agricultural Extension Offices</u>: These offices often collaborate with agricultural producers and industry
  associations and may be able to quickly disseminate information to these audiences.

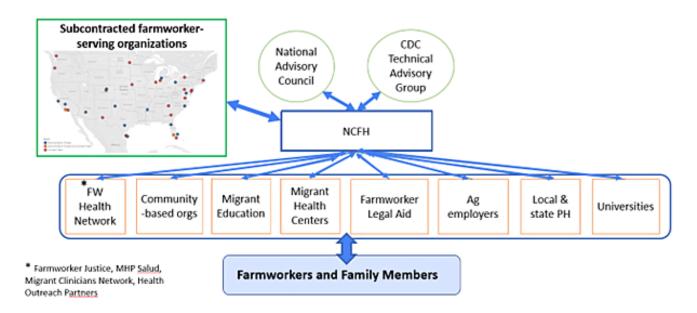


Once partner organizations are identified, it is recommended to:

- Create a farmworker partner contact list, including their existing or potential roles in risk communication and addressing the access and functional needs of farmworkers during an emergency. Include primary contact details and back-up contact information.
- Engage the partner network and identify the type of activities in which the network partners can be integrated. This information can be collected remotely (e.g., by phone, email) or through in-person meetings, and summarized in a worksheet. Planners can use this worksheet to introduce potential/new members to the array of activities where their expertise, knowledge, and outreach can be integrated into risk communication planning. Discuss the preferred method for partners to provide feedback or information to the lead agency and with the network members. When communicating with partners in the contact list or during in-person meetings it is important to assess the need for translating or providing interpretation to participants who have limited English proficiency. Inquire from your initial contacts about other farmworker-serving organizations in your geographic area of interest that are not included in the list.
- Create a Farmworker Communication Pathway showing how information flows from the lead
  communication group to the partner network and how partner organizations communicate with each other.
  The Communication Pathway graph identifies specific communication partners or channels that will be used
  for risk messaging for farmworker communities. Partner communication is a two-way process. Establish clear
  processes for activating the partner network. Identify methods (i.e., email, text message, or phone call) that
  will be used to notify partners of information to be disseminated. See Figure 1 for an example.

Figure 1: National Center for Farmworker Health (NCFH) Network Communication Pathway

# National Center for Farmworker Health (NCFH) Network Communication Pathway



National network-building to reach farmworkers during the COVID-19 pandemic

Preferably you can build a network and regularly engage partners before an emergency happens, but this may be difficult to implement because of constraints on time and resources. In response to the COVID-19 emergency, the CDC collaborated with the National Center for Farmworker Health to rapidly build a national network of farmworker-serving organizations and other key partners in strategic locations around the country. In the first year of the project (2020-2021), the partnership engaged over 90 organizations located in areas with high concentrations of farmworkers to disseminate public health information for low-literacy, multilingual audiences, support direct outreach and vaccination education, and share promising practices for protecting the health of farmworkers during the pandemic. Since the network was national, information was shared primarily through virtual meetings held in English and Spanish and via email distribution lists. In the first year of the project, 24 funded organizations provided over 875,000 outreach and education encounters with farmworker families and supported the distribution of over 78,000 COVID-19 vaccine doses to farmworkers.

#### **Additional resources:**

- <u>Guide for Establishing Collaborative Relationships:</u> This NCFH guide will walk you through the process of identifying and developing community relationships that will help increase access to health care and social services for farmworkers by addressing challenges and barriers that impact this vulnerable population.
- <u>Community Asset Mapping Guide:</u> This NCFH guide helps document a community's existing resources, incorporate its strengths into shared goals, and can build potential for community partnerships in addressing health equity.
- <u>Building Local Level Partnerships for Rural Emergency Preparedness</u>: A webinar series from Rural Health Information Hub on rural emergency preparedness highlighting the role partnerships and collaboration play for rural communities when planning, responding, and recovering from disasters and emergencies.

#### STEP 2: OBTAIN INFORMATION ABOUT THE FARMWORKER COMMUNITY

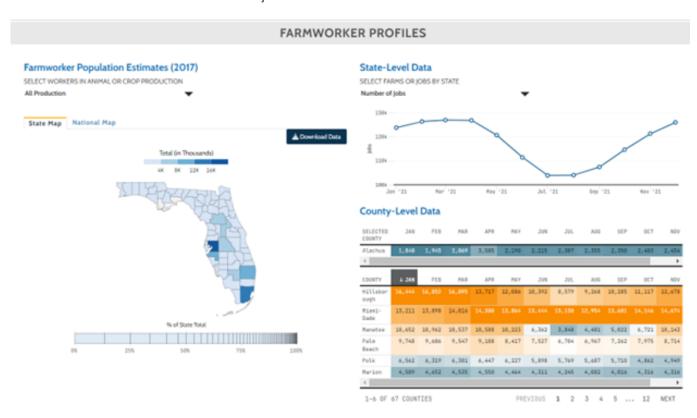
During, or ideally before, an emergency it is critical to have key information about the farmworker populations in the geographic area affected by an emergency event. This includes obtaining information about the numbers, locations, and sociodemographic characteristics of farmworkers and identifying effective strategies for delivering accessible, understandable, and timely emergency-related information for farmworkers in the jurisdiction. Strategies include:

- Use existing data sources and tools (see Resources sections below).
- Conduct a rapid web search and literature review.
- Identify organizations that may have conducted farmworker community needs and health assessments.
- Leverage partners' knowledge of the community. Conduct formal or informal interviews with key local experts.

#### Resources on the numbers and location farmworker populations in a geographic area:

- National Center for Farmworker Health (NCFH) Farm Labor Data Dashboard: This interactive, web-based tool utilizes data from the U.S. Department of Agriculture, U.S. Department of Labor, and U.S. Department of Health and Human Services. (Note: You must request access to the dashboard prior to usage. Access approval can take up to 7 business days.) The dashboard allows to view the following information about farmworkers on county and state levels:
  - o **General Farmworker Population**: Use this tool to view estimates of the total number of farmworkers, number of crop and livestock workers, and their dependents in your area, and monthly fluctuations in the estimated numbers (see Figure 2). The estimate of total number of farmworkers includes migratory and non-migratory workers, undocumented workers, H-2A guest workers, and other farmworker populations.
  - **H-2A Temporary Workers\* Population:** Use this tool to identify the number of H-2A guest workers in your area, which months they arrive to your area, and how long they may be there (see Figure 3).
  - Mapping Tool: Use this tool to identify the locations of H-2A guest worker housing and work sites, and locations of farms that have been inspected by the U.S. Department of Labor. In addition, it shows the locations of Community Health Centers, including those that receive federal funding as Migrant Health Centers to serve farmworkers (see Figure 4).

Figure 2. Sample county-level farmworker population map and estimated monthly changes in number of farm jobs from NCFH Farm Labor Data Dashboard



<sup>\*</sup>H-2A guest workers are agricultural workers with an H-2A temporary work visa recruited by U.S employers from Mexico and other countries. They generally lack personal transportation and may be unfamiliar with local community resources.

Figure 3. Sample county-level population map and seasonal data about H-2A guest workers from the NCFH Farm Labor Data Dashboard

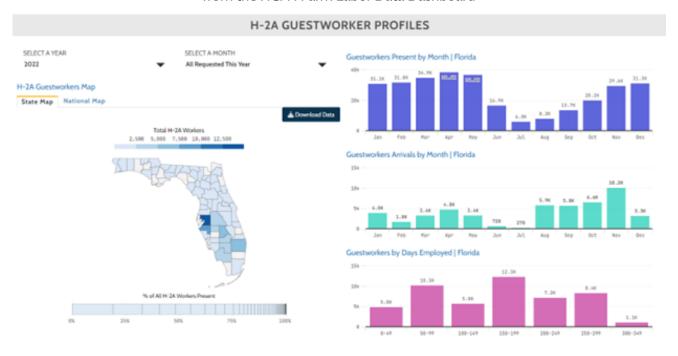
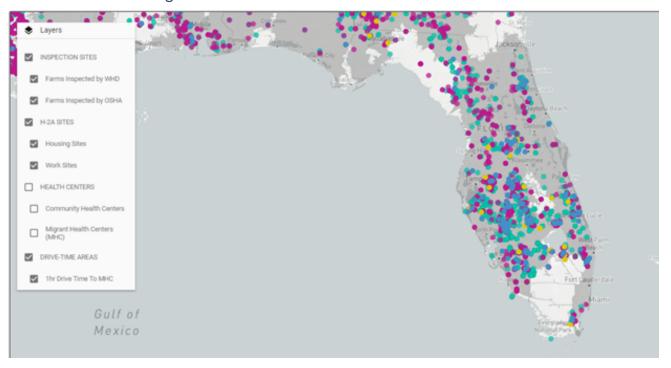


Figure 4. Sample location map of H-2A work and housing locations and locations of farmworker-serving organizations from the NCFH Farm Labor Data Dashboard



#### Resources on the sociodemographic and health characteristics of farmworkers:

- <u>National Agricultural Workers Survey</u> (NAWS): A multi-agency funded effort implemented by JBS International, Inc. NAWS is an employment-based, random-sample survey of U.S. crop workers that collects demographic, employment, and health data in face-to-face interviews. H-2A temporary workers are excluded from the survey. Data are available at the national, regional, or state level (California only).
- <u>Farmworker COVID-19 Community Assessments:</u> A series of mixed-methods county-level assessments conducted by the National Center for Farmworker Health that provides demographic, health, migration, and media usage information about farmworkers on randomly selected work, housing, and community sites in 10 selected counties or areas in the U.S.
- <u>Indigenous Farmworkers Study</u>: A mixed-methods study lead by the California Institute for Rural Studies that provides comprehensive information about the hometown networks, languages, demographics, and other information about Indigenous farmworkers in California during the COVID-19 pandemic.
- <u>COVID-19 Farmworker Study (2021):</u> A mixed-methods study lead by the California Institute for Rural Studies, that provides demographic, health, and working condition information of farmworkers in California, Oregon, and Washington during the COVID-19 pandemic.

#### STEP 3. DEVELOP RISK MESSAGES AND MATERIALS

Once you have identified the numbers, population characteristics, and locations of farmworkers in your area, the next step is to identify existing materials to adapt or develop new farmworker communication resources related to the emergency event. Farmworkers are a diverse community with many linguistic and cultural differences and different population groups that may use different communication channels. It is especially critical to ensure that you are familiar with the languages and the specific language varieties spoken by farmworkers in your jurisdiction, as many farmworkers do not speak English well. A high percentage of farmworkers also have low literacy levels in their native language and may not be able to read well in any language. Keep this in mind when collaborating with communication channels that can provide information in the languages spoken by farmworkers in your area. Effective messaging for farmworkers has simple plain language, audio, and images that are culturally appropriate, translated into the most frequent languages spoken by farmworkers in the area, and visually captivating like:

- Short educational videos, especially those that can be shared on Facebook, WhatsApp, or other communication platforms used by your community members
- Flyers/Handouts
- Culturally relevant songs
- Personal testimonials
- Radio Public Service Announcements (PSAs)

Make a list of existing communication resources and prioritize them to assess whether these resources are accessible, factually accurate, understandable, and culturally and linguistically appropriate for farmworkers.

- Develop a process to assess the quality of resources. Partner organizations can assist with the assessment by providing staff fluent in English and the languages the materials have been translated into.
- If materials are going to be translated into additional languages, ensure it is done by a certified translator or a fluent native speaker. Do not use machine translation tools like Google Translate.
- Use or adapt a checklist or instrument to assess the quality of materials, document the review process and identify messages and materials that need improvement (See Resources below).
- Ensure farmworker materials provide health information that is accurate and factual from credible sources like the Centers for Disease Control and Prevention.
- Ensure messaging also provides information about farmworker's rights in accessing emergency services and resources during and after an event (See Resources below).

The steps below will help you first pilot test your messaging or materials to ensure they are delivered effectively to promote action among the farmworker population:

- Select a group of farmworkers in your area that may be impacted by an emergency and plan for a time to have a focus group to gather their feedback on the messaging.
   When planning a focus group:
  - Consider working with a partner organization that has trust with farmworkers to recruit participants.
  - Offer the group in the evening or outside working hours to have the most participation. Be mindful of farmworkers' working schedule and keep the length of the group brief (one hour or less).
  - Explain the purpose of gathering information and describe how the information will be used. Farmworkers may be more willing to share if they understand the "why."
  - Offer an incentive, a meal, and childcare to minimize barriers to participation. You may need to provide transportation to the focus group location.
  - Schedule interpreters, if needed, and make focus group questions simple and easy to understand.
  - Analyze data gathered and revise your emergency messaging based on feedback gathered.
- 2. If you have an ongoing need for new materials to be reviewed in a timely manner by farmworkers, develop a team of farmworker leaders and provide them with a training and a stipend to regularly provide feedback on your materials.
- 3. Evaluate feedback and revise messaging for more effective understanding and response from the farmworker population.

#### **Additional resources:**

- Sample checklist for assessing educational materials for farmworkers in English and Spanish.
- National Center for Farmworker Health Social Media Guides on <u>COVID-19</u> and <u>Influenza</u>: These short
  guides provide information on developing short, engaging messages for farmworkers that can be applied to
  many public health messaging objectives and contains links to public use images for creating your own
  materials.
- Innovative Text Messaging Strategies to Reach Indigenous Communities: This promising practice provides
  concrete information about how the Guatemalan Maya Center rapidly develops and distributes community
  news and emergency information to community members who speak multiple Mesoamerican Indigenous
  languages.
- Wildfire Smoke Exposure, sample resources created by the Western Center for Agricultural Health and Safety.
- Disaster eligibility assistance for non-U.S.-citizens
  - FEMA: FACT SHEET: Citizenship Status and Eligibility for Disaster Assistance FAQ | FEMA.gov
  - o FEMA: Qualifying for Disaster Assistance: Citizenship and Immigration Status Flyer | FEMA.gov



#### STEP 4. DEVELOP THE RISK COMMUNICATION DISSEMINATION STRATEGIES

Your messaging and communications strategy needs to reach the farmworker community as quickly and effectively as possible. Generally, farmworkers are best reached through in-person outreach with trusted community leaders, community health workers, and health care providers, and through telephone calls, text messages, Facebook, and WhatsApp (see Resources below). Keep in mind that some communication channels might not be available (e.g., phone lines or internet down) or safe (e.g., in-person outreach) during an emergency. Review the current jurisdictional all-hazards communication plans to ensure they consider the needs of farmworkers. Ensure broadcast emergency communication channels provide information in the languages spoken by farmworkers in your area. When using spokespersons or interpreters to communicate with non-English speakers it is important to ensure that they are professional interpreters or fluent speakers in the language(s) of interest.

Meet with media channels you plan to incorporate into your emergency planning to disseminate your messaging. Identify points of contact and develop plans or a schedule to test and release emergency information.

Community Health Workers (CHWs) and health providers are the most trusted and first line of communication to ensure the community has access to accurate and up-to-date information on public health emergencies.

#### **Additional resources:**

Communication Planning

- <u>Effective Communication with MSAW During National Emergencies</u>: This resource informs health centers or other farmworker-serving organizations on the challenges faced by farmworkers during national emergencies, and how to initiative effective emergency communications with this population. (Also available in <u>Spanish</u>)
- <u>Effective Communication with Indigenous Agricultural Workers During National Emergencies</u>: This resource provides health centers or other farmworker serving organizations information about the Indigenous farmworker population, ways national emergencies impact them, and tips to improve their emergency response and communication efforts with this population. (Also available in <u>Spanish</u>)
- Including Outreach Workers and Community Health Workers in Health Center Emergency Preparedness
  and ManagementIncluding Outreach Workers and Community Health Workers inHealth Center
  EmergencyPreparedness and Management. This resource, developed by Health Outreach Partners and
  Migrant Health Promotion, provides practical information on how outreach workers can support three of the
  basic emergency management expectations for community health centers, including: 1) Emergency
  Management Planning, 2) Linkages and Collaborations, and 3) Communications and Information Sharing.

#### Farmworker Radio Stations

- <u>Farmworker Radio Station Directory</u> (provides information on radio stations who have farmworkers as a target/primary audience)
- IHeart Media Spanish Radio Stations



Indigenous Language Interpretation and Translation Services

- NCFH Directory of Mexican and Guatemalan Indigenous Language Interpreters and Translators
- The Guatemalan Mayan Center
- Mixeco Indigena Community Organizing Project (<u>MICOP</u>)
- Comunidades Indígenas en Liderazgo (CIELO)
- Phone interpretation companies that include Indigenous languages
  - o TransPerfect
  - <u>Language Line Solutions</u>

Note: This list is not comprehensive and is provided for information purposes only. We have not formally assessed the quality of interpretation provided by these organizations and companies. It is important to assess which Indigenous languages are provided by the organizations and companies listed above.

#### Developing "edu-tainment" style public service announcements for farmworkers

In 2021 and 2022, the National Center for Farmworker Health collaborated with Radio Bilingüe and the Hispanic Communications Network to develop a series of Spanish-language public service announcements (PSAs) targeted to farmworkers about preventing COVID-19 and promoting COVID-19 vaccinations. These PSAs generated over 26.5 million impressions across 46 participating radio stations and were very positively received by farmworker-serving organizations and local farmworker radio stations.

#### STEP 5: TEST THE FARMWORKER PARTNER DISSEMINATION PATHWAYS

To test how efficiently Farmworker Partner Dissemination Pathways work, engage partners to determine the top mechanisms for distributing information to farmworkers and conduct regular pilot tests of dissemination. For example, some of the following methods could be used to test Dissemination Pathways:

- For in-person dissemination: Ask a group of 3-5 partner organizations to spend one day distributing a pilot-tested material at farmworker housing sites and community sites frequented by farmworkers. Document the number of farmworkers reached and any observations about how farmworkers received the material.
- For telephonic/SMS dissemination: Ask a group of 3-5 partner organizations to distribute information about an upcoming community event (or emergency information, if needed) via text message, if they have that capability, or during a two-hour phone bank session. Document the number of farmworkers reached and the number of failed text messages, incorrect phone numbers, and calls where no one responded and the caller was unable to leave a voicemail to identify a potential failure rate for this method.



#### STEP 6: SUSTAIN THE FARMWORKER PARTNER NETWORK

The steps below will help you in keeping your partners up to date and engaged with emergency preparedness efforts.

- Develop a schedule for ongoing partner meetings. Having ongoing discussions will foster communication and help keep your partners up to date and informed of the latest information.
- Integrate farmworker network partners in emergency drills and tabletop exercises. Meet consistently to reevaluate emergency preparedness plans and improve messaging based on outcomes of drills and practice
  exercises.
- Consider establishing more formal relationships with your network organizations through a Memorandum of Understanding or similar letters of commitment based on the type of collaboration you develop.
- Develop an asset map to maximize community resources available and update on a consistent basis. Share assets in your community to maximize your resources.
- Identify opportunities s for partner organizations to participate in emergency preparedness and response trainings, community assessments, etc.
- Evaluate the impact of your partnership and celebrate your successes together! Analyze data gathered from your work together and note changes that have resulted from your collaboration.

#### **Additional resouces:**

- <u>Emergency Preparedness and Agricultural Workers</u>: This NCFH resource describes different emergencies, why farmworkers are vulnerable during disasters, the potential effects of emergencies and disaster son health centers, and ways to implement emergency preparedness and management.
- <u>Strategies for Emergency Management of Chronic Conditions Among Agricultural Workers</u>: This NCFH resource provides health center staff, clinical coordinators, and emergency managers with tools to assist chronic care conditions in farmworker patients.
- Ag Safety Fact Sheet: Emergency Preparedness for Farmworkers: A factsheet from the Occupational Safety
  and Health Administration (OSHA) that outlines agricultural safety to lessen the impact of unexpected
  emergencies and disasters on farms.
- <u>Keeping Workers Safe during Disaster Cleanup and Recovery</u>: A factsheet from OSHA that describes hazards resulting from natural disasters and precautions for employers and workers.
- <u>Migrant and Seasonal Farm Workers Emergency Preparedness Planning Guide | National Rural Health Association</u>: Actionable guide with tools to help you plan before, during, and after emergency events.
- Relief and Recovery on the Frontlines of Disaster: A rapid response toolkit for immigrant and refugee organizations responding to extreme weather.



## REFERENCES

- 1. Centers for Disease Control and Prevention. Categories of Essential Workers: COVID-19 Vaccination. Published May 15, 2023. Accessed October 31, 2023. https://www.cdc.gov/vaccines/covid-19/categories-essential-workers.html
- 2. Méndez M, Flores-Haro G, Zucker L. The (in)visible victims of disaster: Understanding the vulnerability of undocumented Latino/a and indigenous immigrants. Geoforum J Phys Hum Reg Geosci. 2020;116:50-62. doi:10.1016/j.geoforum.2020.07.007
- 3. Montz BE, Allen TR, Monitz GI. Systemic Trends in Disaster Vulnerability: Migrant and Seasonal Farm Workers in North Carolina. Risk Hazards Crisis Public Policy. 2011;2(1):1-17. doi:10.2202/1944-4079.1070
- 4. Centers for Disease Control and Prevention. (n.d.). Access and Functional Needs Toolkit: Integrating a Community Partner Network to Inform Risk Communication Strategies. Retrieved from https://www.cdc.gov/orr/readiness/00\_docs/cdc\_access\_and\_functional\_needs\_toolkit\_march2021.pdf
- 5. Bureau of Primary Health Care. Uniform Data System Reporting Requirements for 2023 Health Center Data. Health Resources and Services Administration; 2023. Accessed November 27, 2023. https://bphc.hrsa.gov/sites/default/files/bphc/data-reporting/2023-uds-manual.pdf
- 6. Wilson Center. US Farm Employment and Farm Workers. Accessed May 8, 2023. https://www.wilsoncenter.org/article/us-farm-employment-and-farm-workers
- 7. Gold A, Fung W, Gabbard S, Carroll D. Findings from the National Agricultural Workers Survey (NAWS) 2019–2020. JBS International; 2022. https://www.dol.gov/sites/dolgov/files/ETA/naws/pdfs/NAWS%20Research%20Report%2016.pdf
- 8. National Center for Farmworker Health. Farmworker COVID-19 Community Assessments. Accessed March 24, 2023. http://www.ncfh.org/fcca.html
- 9. National Center for Farmworker Health. Indigenous Agricultural Workers Fact Sheet. Accessed June 20, 2023. http://www.ncfh.org/indigenous-agricultural-workers-fact-sheet.html
- 10. Florida, California, and Georgia accounted for one-third of H-2A jobs in FY 2022. Accessed June 20, 2023. http://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=106604
- 11. Guidance on the Essential Critical Infrastructure Workforce | CISA. Published August 13, 2021. Accessed June 20, 2023. https://www.cisa.gov/resources-tools/resources/guidance-essential-critical-infrastructure-workforce
- 12. Arcury TA, Quandt SA. Delivery of Health Services to Migrant and Seasonal Farmworkers. Annu Rev Public Health. 2007;28(1):345-363. doi:10.1146/annurev.publhealth.27.021405.102106
- 13. Mines R, Nichols S, Runsten D. California's indigenous farmworkers. Final Rep Tof Indig Farmworker Study Califonria Endow. Published online 2010. Accessed March 7, 2017. http://www.crla.org/sites/all/files/content/uploads/pdfBrochures/IFS\_Mines\_Final\_2010.pdf

## REFERENCES

- 14. Farquhar S, Samples J, Ventura S, et al. Promoting the occupational health of indigenous farmworkers. J Immigr Minor Health. 2008;10(3):269-280. doi:10.1007/s10903-007-9075-5
- 15. Lee JGL, LePrevost CE, Harwell EL, et al. Coronavirus pandemic highlights critical gaps in rural Internet access for migrant and seasonal farmworkers: a call for partnership with medical libraries. J Med Libr Assoc JMLA. 108(4):651-655. doi:10.5195/jmla.2020.1045
- 16. López-Cevallos DF, Escutia G, González-Peña Y, Garside LI. Cardiovascular disease risk factors among Latino farmworkers in Oregon. Ann Epidemiol. 2019;40:8-12.e1. doi:10.1016/j.annepidem.2019.10.002
- 17. B B, Ho B. The health of U.S. agricultural worker families: A descriptive study of over 790,000 migratory and seasonal agricultural workers and dependents. J Health Care Poor Underserved. 2016;27(2). doi:10.1353/hpu.2016.0089
- 18. Moore KL, Mercado J, Hill J, Katz SC. Disparities in Health Insurance Coverage and Health Status Among Farmworkers, Sonoma County, California, 2013–2014. Prev Chronic Dis. 2016;13:E45. doi:10.5888/pcd13.150519
- 19. Rosenbaum SJ, Shin P. Migrant and seasonal farmworkers: health insurance coverage and access to care. Published online 2005. Accessed January 2, 2017. http://hsrc.himmelfarb.gwu.edu/sphhs\_policy\_facpubs/274/
- 20. Marsh B, Milofsky C, Kissam E, Arcury TA. Understanding the Role of Social Factors in Farmworker Housing and Health. NEW Solut J Environ Occup Health Policy. 2015;25(3):313-333. doi:10.1177/1048291115601020
- 21. Castillo F, Mora AM, Kayser GL, et al. Environmental Health Threats to Latino Migrant Farmworkers. Annu Rev Public Health. 2021;42:257-276. doi:10.1146/annurev-publhealth-012420-105014
- 22. Nguyen HT, Quandt SA, Grzywacz JG, et al. Stress and Cognitive Function in Latino Farmworkers. Am J Ind Med. 2012;55(8):707-713. doi:10.1002/ajim.22035
- 23. Castillo F, Mora AM, Kayser GL, et al. Annual Review of Public Health. Annu Rev Public Health. 2021;42:257-276. doi:10.1146/annurev-publhealth-012420-105014
- 24. Keegan C. Essential agriculture, sacrificial labor, and the COVID-19 pandemic in the US South. J Agrar Change. 2023;23(3):611-621. doi:10.1111/joac.12522
- 25. Bustillo X. A human-trafficking case exposed farmworker abuses. The government is promising change. NPR. https://www.npr.org/2022/05/27/1101741366/human-trafficking-farmworker-abuse-georgia. Published May 27, 2022. Accessed August 10, 2023.
- 26. Carter-Pokras O, Zambrana RE, Mora SE, Aaby KA. Emergency Preparedness: Knowledge and Perceptions of Latin American Immigrants. J Health Care Poor Underserved. 2007;18(2):465-481. doi:10.1353/hpu.2007.0026
- 27. Tarraf W, Vega W, González HM. Emergency Department Services Use Among Immigrant and Non-immigrant Groups in the United States. J Immigr Minor Health. 2014;16(4):595-606. doi:10.1007/s10903-013-9802-z

## REFERENCES

- 28. Kandel W. Profile of Hired Farmworkers, A 2008 Update. Published online July 1, 2008. Accessed August 10, 2023. https://ecommons.cornell.edu/handle/1813/77572
- 29. Quandt SA, Preisser JS, Arcury TA. Mobility Patterns of Migrant Farmworkers in North Carolina: Implications for Occupational Health Research and Policy. Hum Organ. 2005;61(1):21-29. doi:10.17730/humo.61.1.7ndbyxnqd56vatd7
- 30. Fresh Fruit, Broken Bodies. Accessed March 9, 2017. http://www.ucpress.edu/book.php?isbn=9780520275140
- 31. Magaña CG, Hovey JD. Psychosocial Stressors Associated with Mexican Migrant Farmworkers in the Midwest United States. J Immigr Health. 2003;5(2):75-86. doi:10.1023/A:1022955825650
- 32. Guzmán JR, Medeiros MA. An Unlikely Cause: The Struggle for Driver's Licenses to Prevent Family Separation. Pract Anthropol. 2019;41(1):3-6. doi:10.17730/0888-4552.41.1.3
- 33. Guzmán JR, Medeiros MA. Damned If You Drive, Damned If You Don't: Meso-level Policy and Im/migrant Farmworker Tactics under a Regime of Immobility. Hum Organ. 2020;79(2):130-139. doi:10.17730/1938-3525.79.2.130
- 34. Hoerster KD, Mayer JA, Gabbard S, et al. Impact of Individual-, Environmental-, and Policy-Level Factors on Health Care Utilization Among US Farmworkers. Am J Public Health. 2011;101(4):685-692. doi:10.2105/AJPH.2009.190892
- 35. Quandt SA, Brooke C, Fagan K, Howe A, Thornburg TK, McCurdy SA. Farmworker Housing in the United States and Its Impact on Health. NEW Solut J Environ Occup Health Policy. 2015;25(3):263-286. doi:10.1177/1048291115601053