

CLIMATE CHANGE AND ITS IMPACT ON AGRICULTURAL WORKER HEALTH

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Farmworker Justice

Midwest Stream Forum for Agricultural Worker Health

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Farmworker Justice

Farmworker Justice is a nonprofit organization that seeks to empower farmworkers and their families to improve their living and working conditions, immigration status, health, occupational safety, and access to justice.

Using a multifaceted approach, FJ engages in litigation, policy advocacy, capacity-building, and education.

www.farmworkerjustice.org



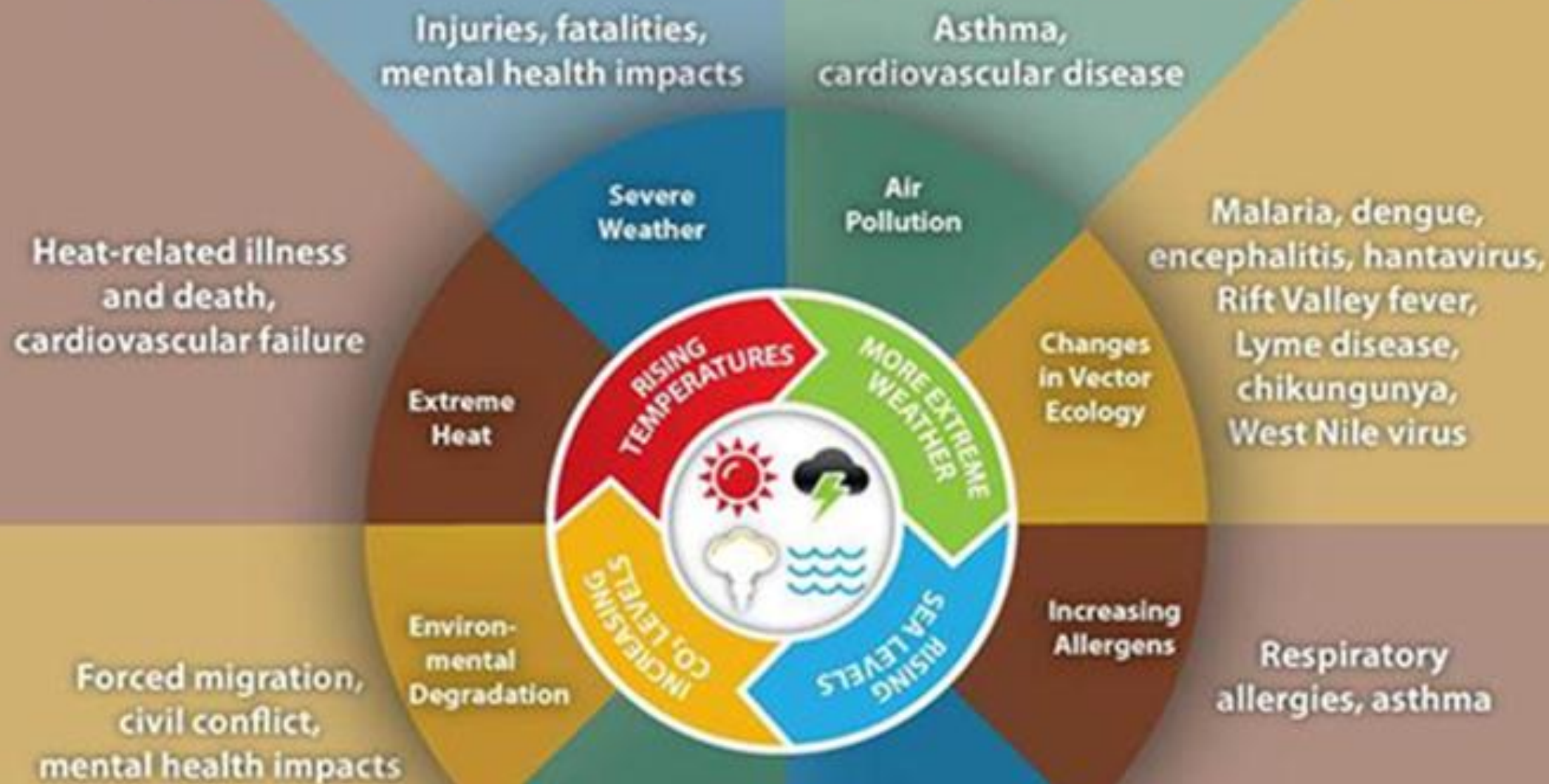
Agenda

- Icebreaker
- Overview – climate change and farmworkers
- Environmental Impacts and Risks
- Small Group Discussion
- Strategies and Policy Recommendations (FJ's Environmental Justice Symposium – May 2022)
- Questions
- Resources

Icebreaker



Impact of Climate Change on Human Health

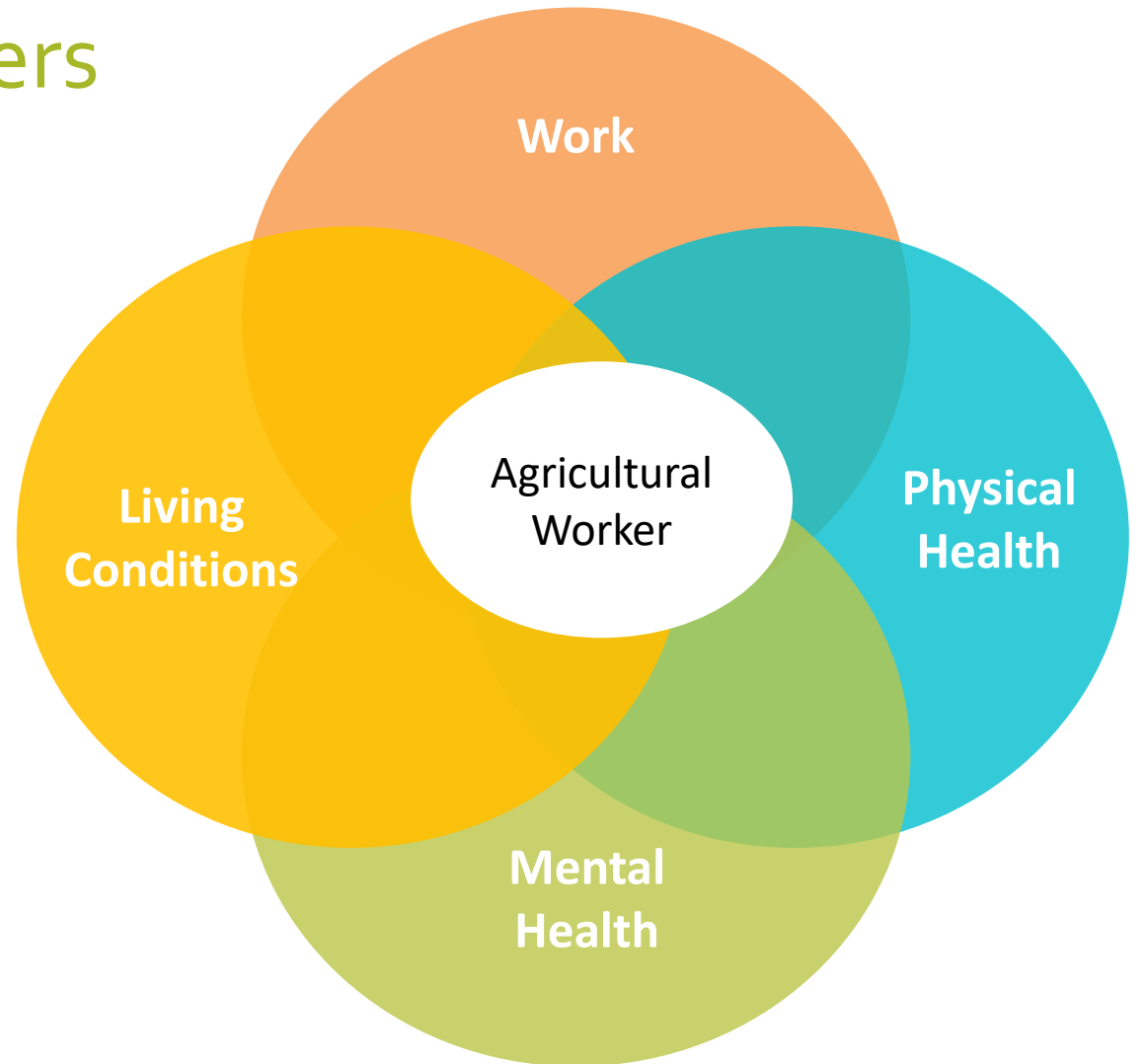


Impacts of climate change on farmworker communities

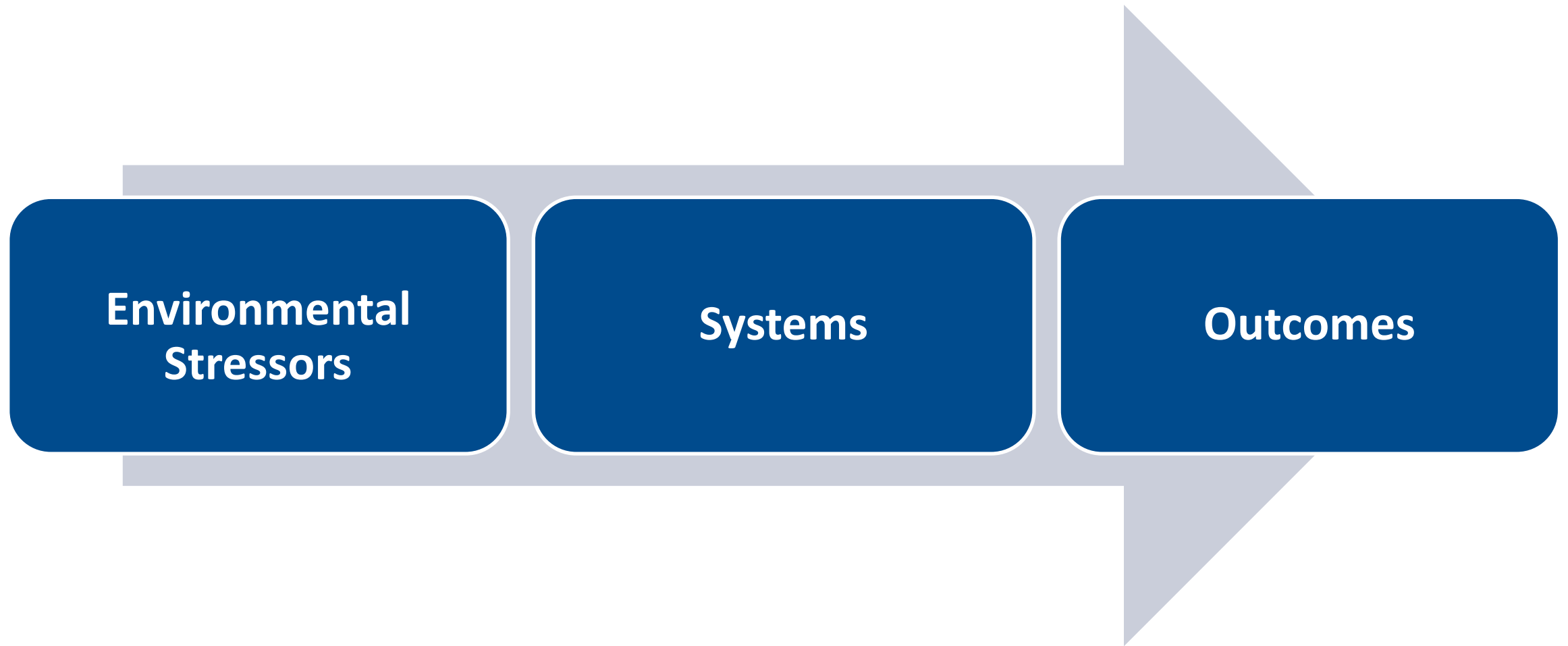
- Displacement
- Increased exposure to air pollution, extreme heat, and pesticides
- Mental health impacts
- Physical injuries and fatalities

Vulnerabilities for farmworkers

- Occupational health risks
- Health disparities
- Migratory lifestyle



Farmworkers & Climate



Environmental impacts & risks

Heat Stress

- High rates among farmworkers (69% in one UFW survey)
- Health impacts:
 - Work injuries
 - Kidney injury & disease
 - Heat stroke, death
- Farmworkers are **1.4%** of all employed workers in the U.S.,¹ but represent about **15%** of occupational heat fatalities (2002 - 2020).²

¹ USDA Economic Research Service. *Ag and Food Sectors and the Economy*. Updated November 8, 2021. Available at: <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/ag-and-food-sectors-and-the-economy/>. Last accessed December 10, 2021.

² Calderon I. *Temperatures continue to rise and farmworkers continue to be at risk*. Midwest Center for Investigative Reporting. October 21, 2021. Available at: <https://investigatmidwest.org/2021/10/21/temperatures-continue-to-rise-and-farmworkers-continue-to-be-at-risk/>. Last accessed December 3, 2021.

Increasing risk for farmworkers

Projections*

- **2°C warming scenario**
 - By mid-century, the number of **unsafe working days** (with heat index ≥ 105) experienced by the average farmworker will increase from **21 to 39**.



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Heat stress: Worker protection

California

Washington

Oregon

Minnesota
(indoor)

Colorado

Maryland
(Pending)

- There is no federal standard
- OSHA began a rulemaking process in 2021
- Few states have heat standards to protect outdoor workers

Wildfire Smoke

- Between 1984 and 2015, the number of large fires doubled across the western U.S.*
- Health impacts:
 - Risk of respiratory and heart disease
 - Exposure to hazardous air quality
 - Mixture of air pollution with pesticides and other contaminants
- Wildfire smoke inhalation has been attributed to 15,000 premature deaths in the U.S. and is projected to increase to 40,000 deaths as a result of climate change**
- Nearly 3 out of 4 workers in Mattawa (Eastern WA) reported that while working they were exposed to an unhealthy amount of wildfire smoke and 100% of respondents said they had little or no information regarding wildfire smoke protection***

* Department of Ecology. State of Washington. Retrieved from: <https://ecology.wa.gov/Air-Climate/Responding-to-climate-change/Wildfire-risks>

** Ford B, Val Martin M, Zelasky SE, Fischer EV, Anenberg SC, Heald CL, Pierce JR. Future Fire Impacts on Smoke Concentrations, Visibility, and Health in the Contiguous United States. *Geohealth*. 2018 Aug 3;2(8):229-247. doi: 10.1029/2018GH000144. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7038896/>

***Houtz, Jolayne. Heat, fire, smoke and health in Washington's ag industry. University of Washington, Department of Environmental and Occupational Health Sciences (DEOHS). Retrieved from: <https://deohs.washington.edu/hsm-blog/heat-fire-smoke-and-health-washingtons-ag-industry>

Wildfire Smoke: Worker protection

California

Oregon

Washington*

- There is no federal standard
- Only a few states have regulations in place

*WA is finalizing it's permanent wildfire smoke rule

Pesticide exposure & climate change

- The range of many pests will increase, leading to increased pesticide use.
- Heat increases the rate of pesticide evaporation & their concentration in the air.
- May increase rate at which pesticides turn into more toxic compounds.
- May also affect the performance of PPE, and increase dermal absorption of pesticides.



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Decreased access to clean water

- Water systems in low-income and rural communities are struggling to meeting drinking water standards.
- Floods and long droughts affect availability and quality of water



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Clean water access: Structural barriers

- Underinvestment in rural areas
- Self-funding model for water systems not sustainable in poor communities
- Government grant funding often for construction, not operations & maintenance
- Cost sharing requirements for government funding
- Unincorporated areas at a disadvantage
- Bipartisan infrastructure law (2021) includes \$510 million over five years for drinking water grants for disadvantaged communities, but **has a cost-share requirement (45%)**

Small Group Discussion



- What has been the impact of climate change on farmworkers in your community?
- What adaptations have your clinics made to support farmworkers and address the issues related to climate change?
- What are the some best practices to address climate change?
- What are the gaps/needs for your health center/the farmworker community you serve?

FJ's Environmental Justice Symposium

- Two-day virtual symposium held May 17-18, 2022
- Participants represented health centers, PCAs, legal services orgs, academic institutions, environmental justice orgs, and community-based orgs
- Featured presentations by: Dr. Marysel Pagan (MCN), Maritza Mendoza (Green Latinos), Joan Flocks (University of Florida), and Lihlani Nelson (Center for Agriculture and Food Systems, Vermont Law School)
- Topics:
 - Effects of extreme weather events on farmworker health
 - Water access
 - Heat stress
 - Pesticide exposure



Farmworkers and the Climate Crisis

Farmworker Justice's
Environmental Justice Symposium
Summary Report



July 2022

Gaps/Needs to Address

- Lack of culturally appropriate emergency preparedness materials
 - Protections
 - Preparedness
 - Emergency warnings
 - Resources/support
- Lack of information about protections
- Lack of control over working & housing conditions
- Lack of recovery and response resources in farmworker/rural communities

Best practices

- Partnerships between diverse organizations
- Community-based participatory research
 - *e.g. Girasoles Project by Emory Univ. & Farmworker Assoc. of FL*
- Policy briefs
- Farmworker testimonies
- Radionovelas and PSAs
- Social media campaigns
- Community health workers (CHWs)

Role of Community Health Workers



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Policy recommendations: Addressing health impacts

- Ensure that all people, regardless of immigration status, feel comfortable accessing emergency shelter and other services
 - Funding farmworker organizations and other community groups for emergency preparedness
 - More response and recovery resources to underserved rural areas, farmworker communities.
- Increase health center funding
 - Emergency preparedness; disaster aid; mental health services
 - Involve community organizations in all aspects of planning
 - Emergency preparedness, response, recovery
 - Emergency information must be communicated in appropriate languages
 - Alerts, evacuation information
 - Media and organizations that reach the communities affected (including those in labor camps & other hard-to-reach locations)

Resources

- **FJ Issue Brief:** [*The Climate Crisis and Its Impact on Farmworkers*](#)
- **FJ Symposium Report:** [*Farmworkers and the Climate Crisis*](#)
- **Vermont Law School & FJ:** [*Exposed and At Risk: Opportunities to Strengthen Enforcement of Pesticide Regulations for Farmworker Safety*](#)
- **FJ & Migrant Clinicians Network:** [*Heat-Related Illness Clinician's Guide*](#)

Thank you!!

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